

# Polar 54 Design Guide

Issue 6 | May 2022

Think partitioning,  
think Komfort



## Polar 54 Design Guide

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### Contents

Overview

Introduction

Specification

Acoustic Performance

Speech Privacy Potential

Structural Performance

Structural Fixings Guide

Component Identification

Junction Drawings

## Polar 54 Overview

### Dimensions

Screen Height up to 3.0m\*  
Doorset Height up to 3.0m

### Acoustic Performance

Single Glazed up to 41dB ( $R_{w}$ )\*  
Double Glazed up to 47dB ( $R_{w}$ )\*  
Speech Privacy Potential up to 'Good'

### Structural Performance

0.74kN/m up to 3.0m\* (BS 6180:2011)  
Severe Duty up to 3.0m\* (BS 5234-2:1992)

### Fire Performance

None

### Deflection Head

+/-25mm

### Glass Options

10mm & 12mm Toughened  
13.5mm Toughened Laminated  
10.8mm, 12.8mm & 14.8mm Acoustic Laminated

### Doorset Options

10mm & 12mm Glass Doors  
44mm & 54mm Timber Doors  
Sonik 52, 70 & 70R Doors

### Optional Extras and Finishes

- \* Blinds
- ✓ Manifestations
- ✓ Graphics
- ✓ Switch Glass
- ✓ Kross Glaze
- ✓ Curved Glass\*
- ✓ Polyester Powder Coat Finish
- \* Satin Anodised Finish
- ✓ Special Anodised Finish

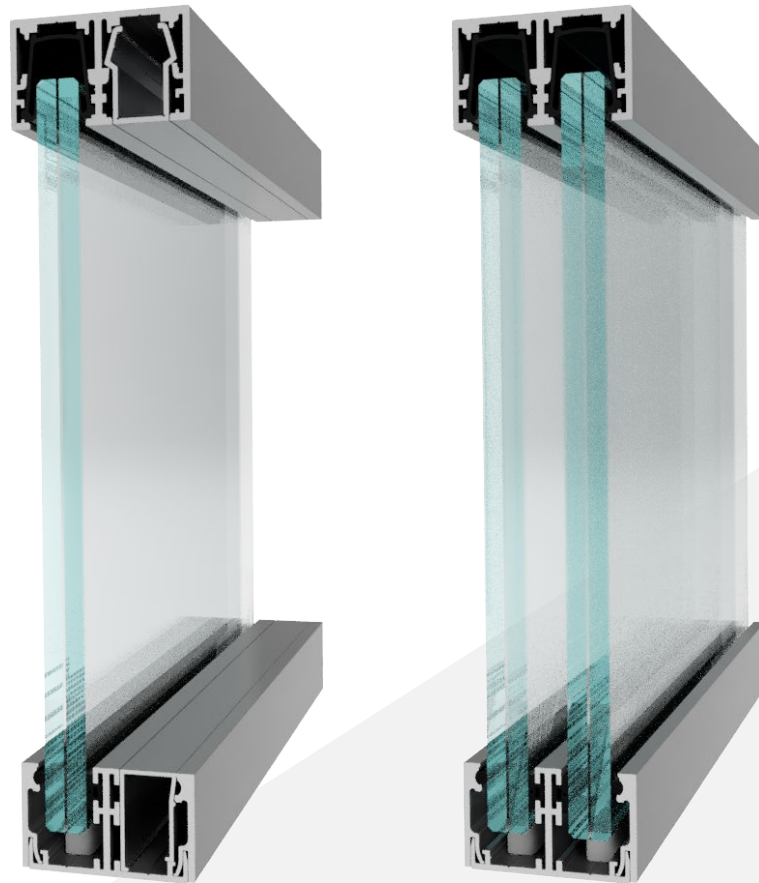
\* Dependent on configuration and specification



## Polar 54 Introduction

Polar 54 is a design response to the architectural trend for narrow gauge glazed partitioning. This elegant 54mm wide system is available as double or offset single glazed with a range of glass configurations available. The frameless bubble jointed glazing and minimal trackwork provides contemporary aesthetics in any working environment, allowing an abundance of light to fill the space to naturally brighten any room.

For any busy environment, this system allows designers to get imaginative with space by creating private meeting rooms, boardrooms, quiet areas and more. Increase flexibility and create the perfect working environment.



## Polar 54 Specification

Polar 54 can accommodate 10-14.8mm glass in toughened, toughened laminated and acoustic laminated to meet a range performance and budgetary requirements, all glass options can be configured as offset single glazed or slimline double glazed.

Boasting acoustic performance up to 41dB ( $R_w$ ) offset single glazed and up to 47dB ( $R_w$ ) double glazed, with structural performance up to severe duty and 0.74kN/m line loads.

The system includes an aluminium door frame and is compatible with Komfort's Sonik, single glazed and timber door options, either full height or with a glazed over panel. Other features include a deflection head for +/-25mm and integration components into drywall or Komfort's Komfire 75 and 100 systems.

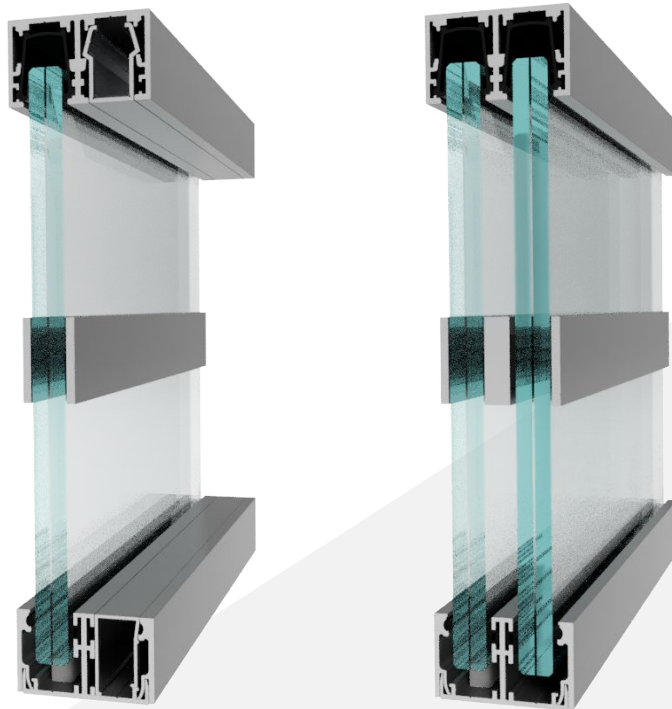


## Polar 54 Specification

Applied Kross Glaze bars are available for all glass types, in both offset single glazed or slimline double glazed. In the double glazed configuration, a solid aluminium bar is applied to the internal glass and backed with foam to create the illusion of individual panes without compromising performance. In fact, this addition improves the acoustic performance by up to 2dB ( $R_{W}$ ).

For visual privacy manifestation, graphics and Switch Glass are available with this system.

All aluminium components for the screen and door frames will be powder coated to any RAL or BS colour code, please ask for availability. If a specialist finish is required on the aluminium, please contact your local Project Specification Manager or our Technical Department.



## Polar 54 Acoustic Performance

Airborne sound insulation laboratory testing of Polar 54 offset single glazed partitioning in accordance with BS EN ISO 10140-1:2016 and BS EN ISO 10140-2:2010.

Acoustic Performance of Polar 54 Offset Single Glazed Screens		
Glass Configuration	dB Rating	Certificate
10mm Toughened Glass with Bubble Joints	31dB ( $R_{w}$ )	K54-AP-01
12mm Toughened Glass with Bubble Joints	33dB ( $R_{w}$ )	K54-AP-03
10.8mm Acoustic Laminated Glass with Bubble Joints	38dB ( $R_{w}$ )	K54-AP-02
12.8mm Acoustic Laminated Glass with Bubble Joints	39dB ( $R_{w}$ )	K54-AP-04
14.8mm Acoustic Laminated Glass with Bubble Joints	41dB ( $R_{w}$ )	K54-AP-05
13.5mm Toughened Laminated Glass with Bubble Joints	36dB ( $R_{w}$ )†	K54-AP-16

It should be noted that in an on-site acoustic test, a glazed partition can result in a 3dB to 5dB lesser performance than under laboratory conditions. This can be further affected by ambient noise levels on the receiving side of the test sample and by poorly insulated abutments and voids above and below the partition which will result in a 'flanking' path for audible sound.

† This glass type has not been laboratory tested by Komfort and the sound insulation rating shown is based on the glass manufacturers data.



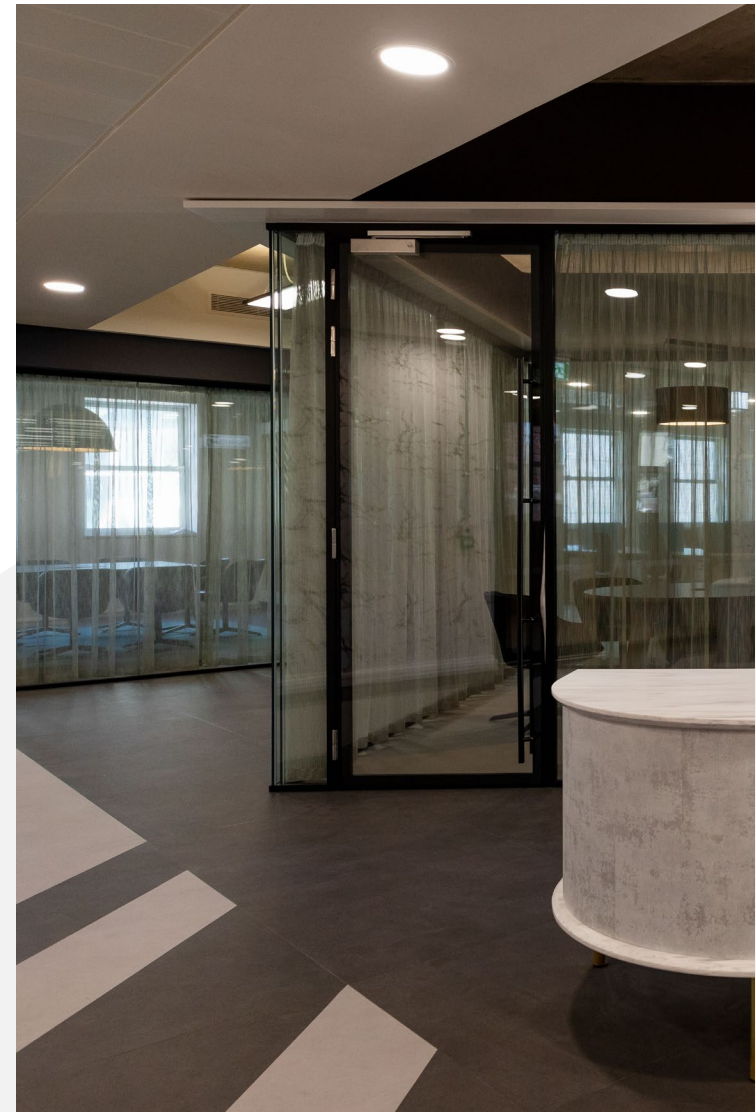
## Polar 54 Acoustic Performance

Airborne sound insulation laboratory testing of Polar 54 double glazed partitioning in accordance with BS EN ISO 10140-1:2016 and BS EN ISO 10140-2:2010.

Acoustic Performance of Polar 54 Double Glazed Screens		
Glass Configuration	dB Rating	Certificate
12mm & 10mm Toughened Glass with Bubble Joints	39dB ( $R_{Nf}$ )	K54-AP-06
12mm Tough. & 10.8mm Aco. Lam. Glass with Bubble Joints	40dB ( $R_{Nf}$ )	K54-AP-07
12.8mm Aco. Lam. & 10mm Tough. Glass with Bubble Joints	40dB ( $R_{Nf}$ )	K54-AP-09
12.8mm Aco. Lam. & 12mm Tough. Glass with Bubble Joints	41dB ( $R_{Nf}$ )	K54-AP-10
12.8mm & 10.8mm Acoustic Lam. Glass with Bubble Joints	41dB ( $R_{Nf}$ )	K54-AP-08
12.8mm & 12.8mm Acoustic Lam. Glass with Bubble Joints	45dB ( $R_{Nf}$ )	K54-AP-11
14.8mm & 10.8mm Acoustic Lam. Glass with Bubble Joints	44dB ( $R_{Nf}$ )	K54-AP-12
14.8mm & 12.8mm Acoustic Lam. Glass with Bubble Joints	45dB ( $R_{Nf}$ )	K54-AP-13
14.8mm & 10.8mm Aco. Lam. Glass with Applied Kross Glaze	46dB ( $R_{Nf}$ )	K54-AP-14
14.8mm & 12.8mm Aco. Lam. Glass with Applied Kross Glaze	47dB ( $R_{Nf}$ )	K54-AP-15

It should be noted that in an on-site acoustic test, a glazed partition can result in a 3dB to 5dB lesser performance than under laboratory conditions. This can be further affected by ambient noise levels on the receiving side of the test sample and by poorly insulated abutments and voids above and below the partition which will result in a 'flanking' path for audible sound.

† This glass type has not been laboratory tested by Komfort and the sound insulation rating shown is based on the glass manufacturers data.





## Polar 54 Speech Privacy Potential

Examples of Speech Privacy Potential for Polar 54 offset single and double glazed screens are given below with varying degrees of background noise levels for office environments.

Speech Privacy Potential of Polar 54 Offset Single & Double Glazed Screens				
Glass Type & Sound Level Difference	Privacy of Speech from the Next Room with Background Noise Level			
	25dBA	30dBA	35dBA	40dBA
OSG 10.8mm Acoustic Lam. 34dB ( $D_w$ )*	59 - Poor	64 - Poor	69 - Basic	74 - Basic
OSG12.8mm Acoustic Lam. 35dB ( $D_w$ )*	60 - Poor	65 - Basic	70 - Basic	75 - Good
OSG14.8mm Acoustic Lam. 37dB ( $D_w$ )*	62 - Poor	67 - Basic	72 - Basic	77 - Good
12.8+10.8mm Acoustic Lam. 37dB ( $D_w$ )*	62 - Poor	67 - Basic	72 - Basic	77 - Good
12.8+12.8mm Acoustic Lam. 41dB ( $D_w$ )*	66 - Basic	71 - Basic	76 - Good	81 - Good
14.8+12.8mm Acoustic Lam. 41dB ( $D_w$ )*	66 - Basic	71 - Basic	76 - Good	81 - Good
14.8+12.8mm w/Kross Glaze 43dB ( $D_w$ )*	68 - Basic	73 - Basic	78 - Good	83 - Good

\* The examples of weighted sound level difference ( $D_w$ ) data shown is assumed as a nominal 4dB less than the weighted sound reduction index ( $R_w$ ) from laboratory testing, as with an on-site acoustic test a glazed partition can result in a 3dB to 5dB lesser performance than under laboratory conditions. This can be further affected by ambient noise levels on the receiving side of the test sample and by poorly insulated abutments and voids above and below the partition which will result in a 'flanking' path for audible sound.

### Speech Privacy Potential Explained

Speech Privacy Potential (SPP) is the value and rating of speech intelligibility between two rooms. The privacy of the partition is determined by the intelligibility of speech outside of the room that is generated within the room. A partition can provide a high degree of speech privacy, even if speech is audible, provided that speech is not intelligible. The poorer the speech intelligibility, the more private the room.

It must be noted that the aim of creating privacy between rooms lies in reducing speech intelligibility to a level at which speech cannot be understood, rather than reducing speech level to inaudibility.

Speech Privacy Potential is calculated from the addition of two factors; the background noise level of the receiving room, expressed in terms of dBA, and the acoustic separation of the partition between the rooms, expressed as the field performance sound insulation of the partition in dB ( $D_w$ ).

The values and corresponding degrees of privacy ratings are shown in the table below.

$$dB (D_w) + dBA = SPP$$

Rating	SPP	Description of Privacy
High	85 <	Raised voices are barely audible and unintelligible
Good	75-84	Normal speech is barely audible, raised voices are mostly unintelligible
Basic	65-74	Normal speech can be overheard some of the time, raised voices can be heard
Poor	< 65	Normal speech can be heard most of the time

## Polar 54 Structural Performance

Strength and robustness analysis of Polar 54 offset single and double-glazed partitions in accordance with BS 5234-2:1992 (Annex A and Annex G)<sup>†</sup> and BS 6180:2011 when used as a barrier.

Structural Performance of Polar 54 Glazed Partitions to BS 5234-2:1992			
Loaded Glass & Joint Type	Duty Grade	Max. Height	Certificate
10mm Toughened with Bubble Joints	Heavy	2260mm	K54-SP-03
	Medium	2420mm	
	Light	2570mm	
12mm Toughened with Bubble Joints	Severe	3000mm	K54-SP-02
10.8mm Acoustic Lam. with Bubble Joints	Medium	2390mm	K54-SP-06
	Light	2550mm	
12.8mm Acoustic Lam. with Bubble Joints	Severe	2900mm	K54-SP-04
	Heavy	3000mm	
14.8mm Acoustic Lam. with Bubble Joints	Severe	3000mm	K54-SP-05
13.5mm Toughened Lam. with Bubble Joints	Severe	3000mm	K54-SP-07

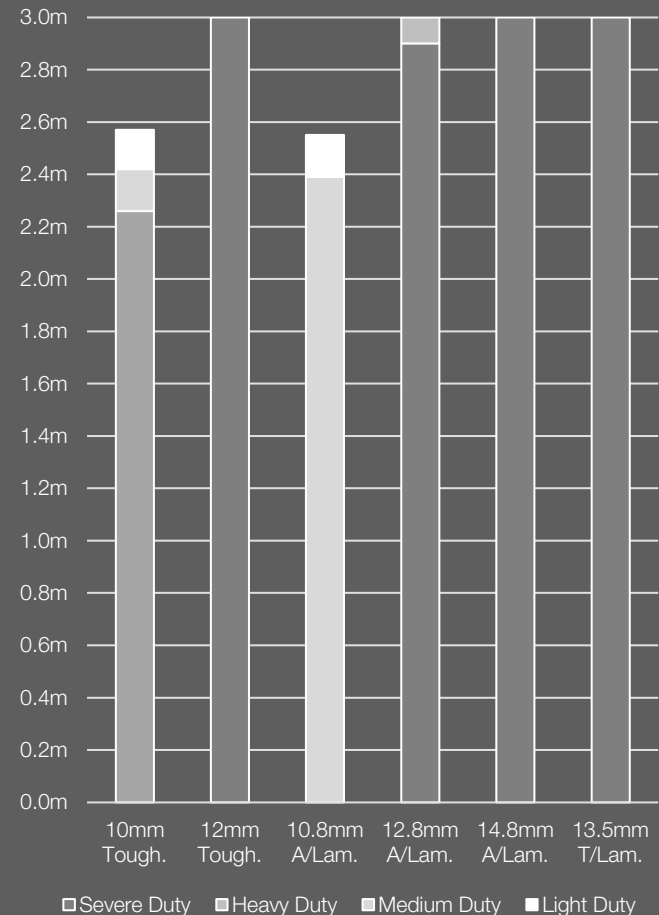
Structural Performance of Polar 54 Glazed Partitions to BS 6180:2011			
Loaded Glass & Joint Type	Line Load	Max. Height	Certificate
12mm Toughened with Bubble Joints	0.74kN/m	3000mm	K54-SP-02
14.8mm Acoustic Lam. with Bubble Joints	0.74kN/m	2500mm	K54-SP-05
13.5mm Toughened Lam. with Bubble Joints	0.74kN/m	2450mm	K54-SP-07

Polar 54 structural performance is assessed based on physical test data and Finite Element Analysis of supported glass by independent consultants.

<sup>†</sup> The resulting data relates to BS 5234:2 1992 Annex A for the determination of partition stiffness and Annex G for the determination of resistance to crowd pressure.

Duty ratings are graded in four categories; Light Duty for domestic accommodation, Medium Duty for office accommodation, Heavy Duty for public circulation and industrial areas, Severe Duty for major circulation and heavy industrial areas.

### Glass Height Limitations BS 5234-2



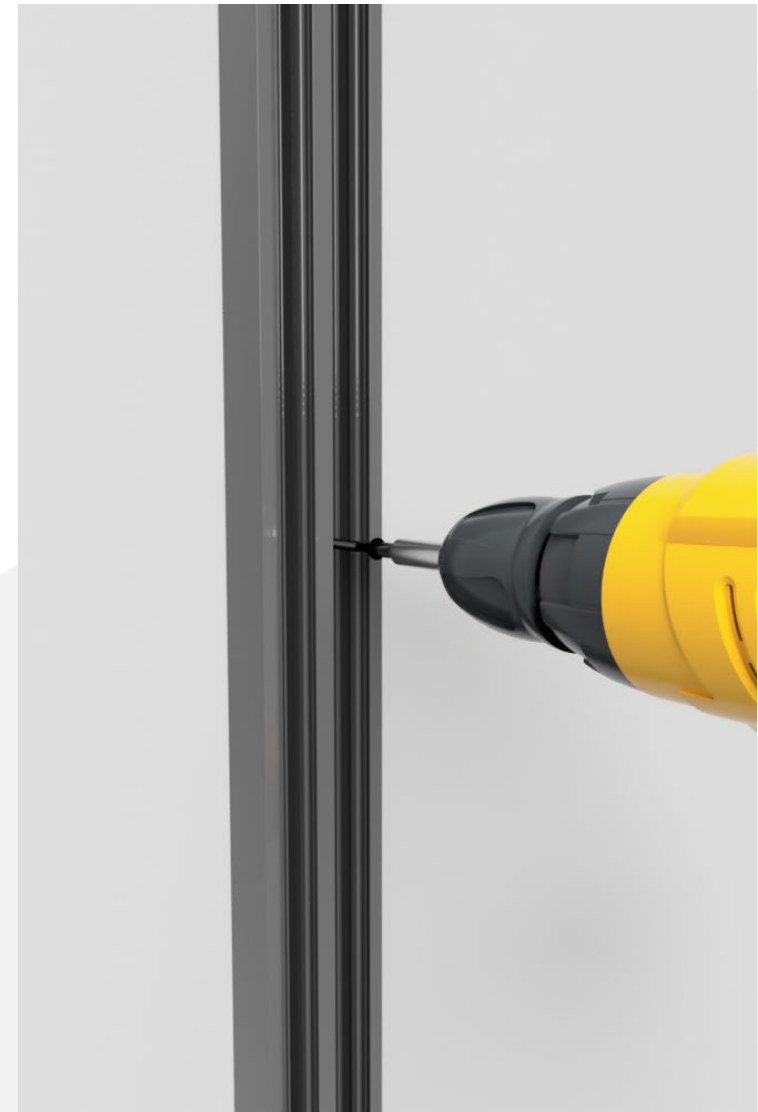
## Polar 54 Structural Fixings Guide

The table below provides guidance for structural fixings into a range of typical substrates when installing Polar 54 offset single and double glazed partitions.








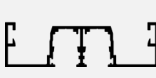





Structural Fixings Guide for Polar 30 Glazed Partitions					
Substrate	Fixing Type		Minimum Engagement	Line Load	Maximum Centres
Timber		No.8 (4mm) Wood Screw	25mm	0.74kN	400mm
Tin <0.8mm		Drywall Screw	25mm	0.74kN	500mm
Tin >0.8mm		Jack Point Screw	25mm	0.74kN	800mm
Concrete or Screed		No.8 (4mm) Wood Screw & Rawlplug	25mm	0.74kN	500mm
Concrete or Screed		Hilti HUS3-P M6 Screw	42mm	0.74kN	1000mm
Concrete or Screed		Rawlplug M8 x 80	70mm	0.74kN	600mm
Steel <3mm		5.5x19mm Low Profile Head Screw	12mm	0.74kN	800mm
Steel 4-12mm		5.5x25mm Low Profile Head Screw	12mm	0.74kN	800mm









It should be noted that any substrate interfacing a Polar system must be built and certified to withstand equal or greater loads than those specified for the partition. All trackwork must be fixed directly to a substantial structural element without any form of packing.

Please be aware that the build-up of substrates/grounds on each project may differ and that the fixings shown are for a guidance only. For this reason, we recommend that any structural calculations should be site specific.
















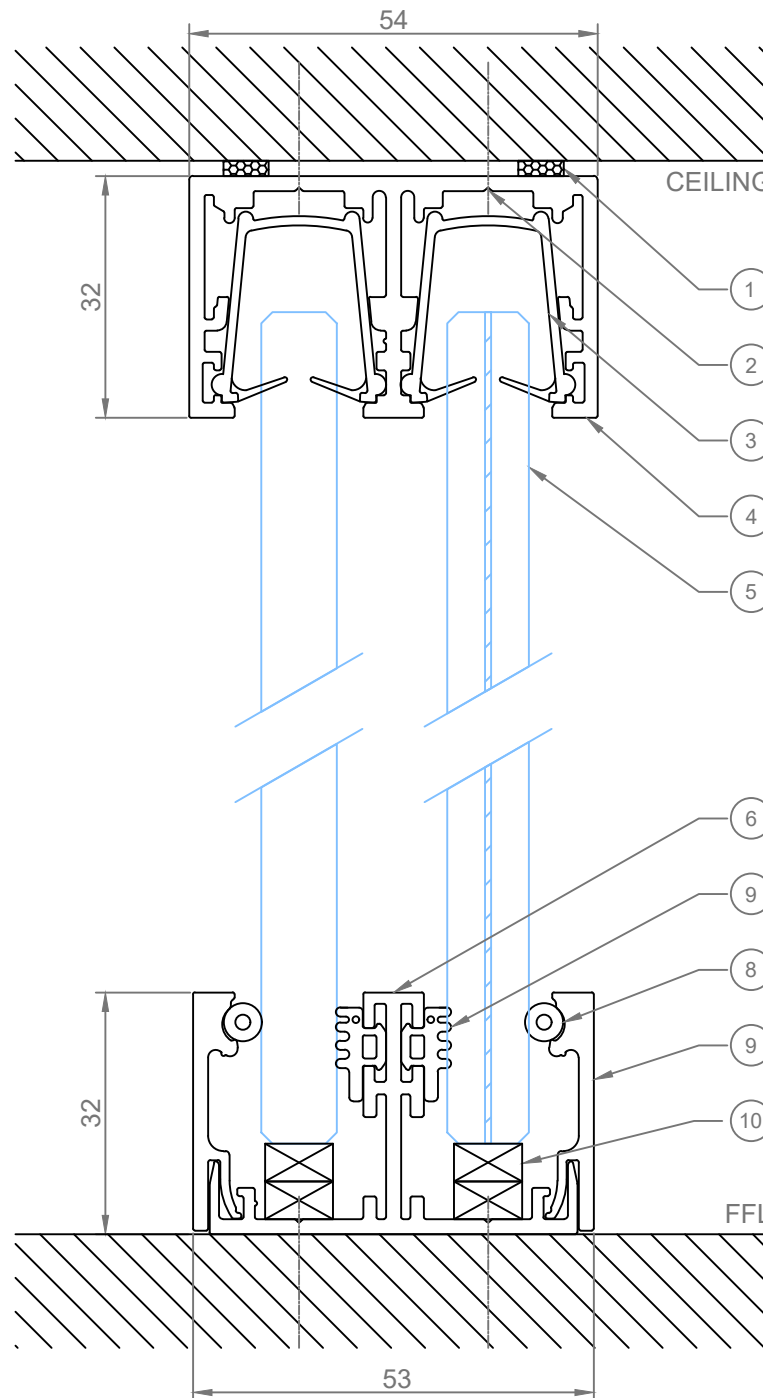
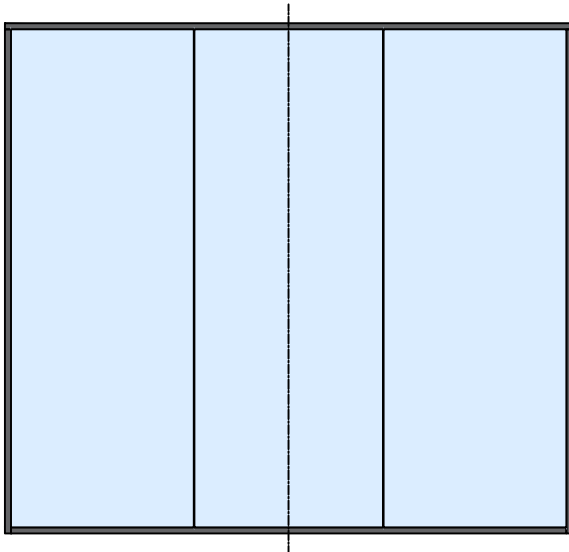
## Polar 54 Component Identification

Trackwork & Door Frame Components								
Part Code	ID	Description	Part Code	ID	Description	Part Code	ID	Description
K54HT		Head Track	K54FT		Floor Track	K54DF		Door Frame
K54GB		32mm Glazing Bead	K54DH		Deflection Head	K54DHC		Deflection Head Channel
K54WA75		75mm Drywall Wrap Around Adaptor Post	K54WA100		100mm Drywall Wrap Around Adaptor Post	K54TJ100		100mm Tape & Joint Adaptor Post
K54GI		Glazing Infill	K54BI		Base Infill	K54KGB		1-1/4" x 3/8" Kross Glaze Bar
109		32mm x 3mm Flat						

Cleats, Brackets & Fixings								
Part Code	ID	Description	Part Code	ID	Description	Part Code	ID	Description
K54SC		Narrow Stealth Cleat	K54DFB		Door Frame Floor Bracket	K54C180		Straight Junction Cleat
K54C90		90° Corner Junction Cleat	K54C135		135° Corner Junction Cleat	311		38mm x No 8 CSK Doorframe Screw
DF16042		42mm Drywall Screw	DFHS.75		Self-Drilling Drywall Screw 4.2 x 75mm			

## Polar 54 Component Identification

Glazing Gaskets, Foams & Tapes								
Part Code	ID	Description	Part Code	ID	Description	Part Code	ID	Description
SJ20		Glazing Channel Gasket for 10-14.8mm Glass	K54DS		Door Frame Buffer Seal	K54BG4B		4mm Dia. Hollow Base Gasket for 12-12.8mm Glass
K54BG5B		5mm Dia. Hollow Base Gasket for 10-10.8mm Glass	SJ26.10B		E Gasket for 10-10.8mm Glass	SJ26.12B		E Gasket for 12-12.8mm Glass
SJ34		Bubble Dry Joint for 10-12.8mm Glass	K35BJ		Bubble Dry Joint for 14.8mm Glass	174		6mm x 1mm Foam for 14.8mm Glass
175		6mm x 2mm Foam for 14.8mm Glass	342		12mm x 6mm Foam Rubber	K54KGF		18mm x 4mm Foam Rubber
TAPE19.1C		Tesa 62932 500um Double Sided PE Foam Tape						



Glazed Module Parameters - 10mm Toughened		
Unit	Max. Height	Max. Width
Module Size	2570mm	1200mm
Glass Size	2540mm	1196mm
Glass Weight - 10mm Toughened = 25kg/m <sup>2</sup>		

Glazed Module Parameters - 10.8mm Acoustic Laminated		
Unit	Max. Height	Max. Width
Module Size	2550mm	1200mm
Glass Size	2520mm	1196mm
Glass Weight - 10.8mm Acoustic Laminated = 27kg/m <sup>2</sup>		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	SJ20
4	K54HT
5	10-10.8mm (CFT or Lam.) GLASS
6	K54FT
7	SJ26.10B
8	K54BG5B
9	K54GB
10	PSUN PACKERS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

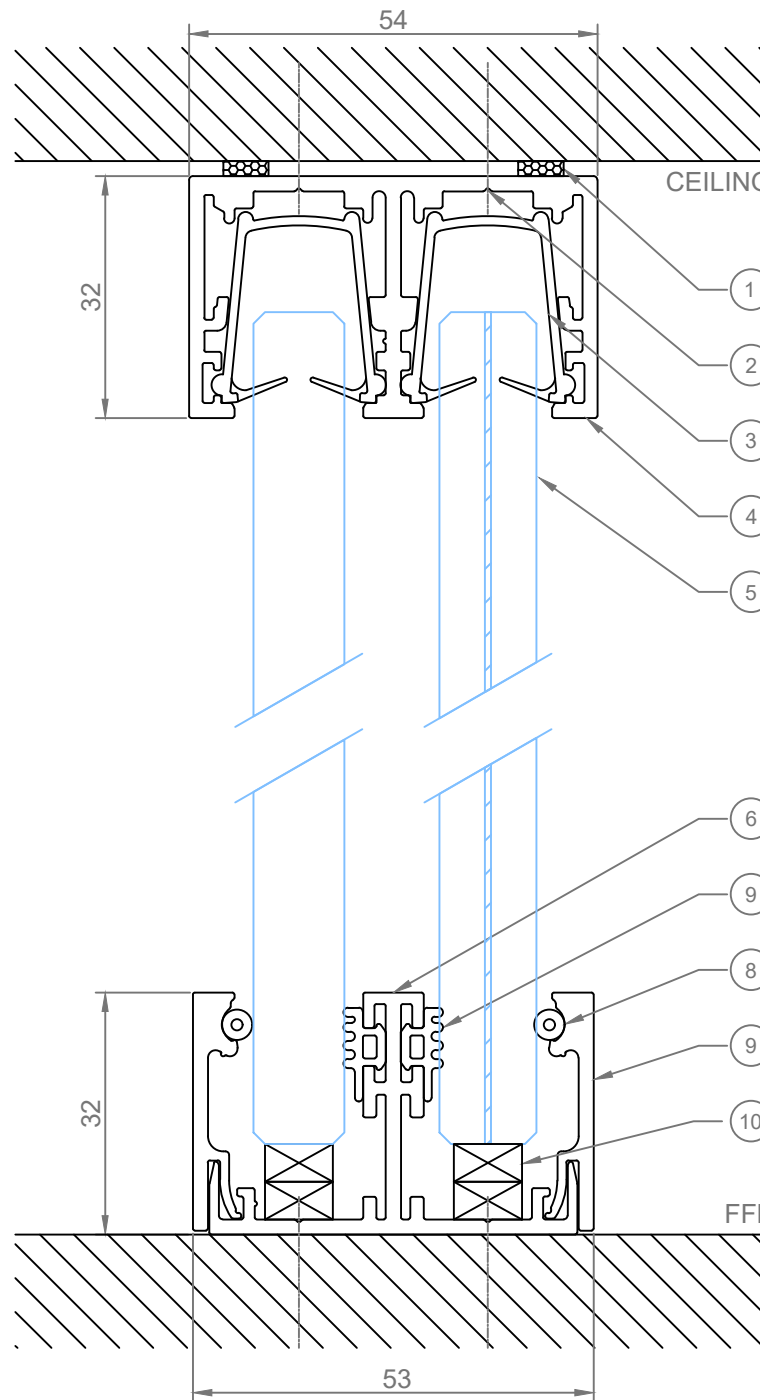
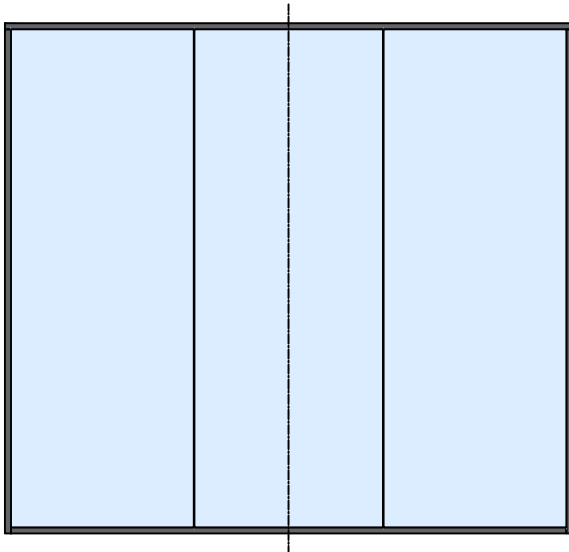
- Double Glazed
- Vertical Screen  
10-10.8mm Glass
- 0 min Integrity  
0 min Insulation
- 0 mm  
Deflection

DRAWING NO:  
K54-VS-01

DATE:  
10/03/22

SCALE:  
1:1

ISSUE NO:  
3



Glazed Module Parameters - 12mm Toughened		
Unit	Max. Height	Max. Width
Module Size	3000mm	1200mm
Glass Size	2970mm	1196mm
Glass Weight - 12mm Toughened = 30kg/m <sup>2</sup>		

Glazed Module Parameters - 12.8mm Acoustic Laminated		
Unit	Max. Height	Max. Width
Module Size	3000mm	1200mm
Glass Size	2970mm	1196mm
Glass Weight - 12.8mm Acoustic Laminated = 32kg/m <sup>2</sup>		

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	SJ20
4	K54HT
5	12-12.8mm (CFT or Lam.) GLASS
6	K54FT
7	SJ26.12B
8	K54BG4B
9	K54GB
10	PSUN PACKERS

NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
- Double Glazed
  - Vertical Screen  
12-12.8mm Glass
  - 0 min Integrity  
0 min Insulation
  - 0 mm Deflection

DRAWING NO: **K54-VS-09**      DATE: **10/03/22**

SCALE: **1:1**      ISSUE NO: **2**

## Polar 54




### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	SJ20
4	K54HT
5	14.8mm (A/Lam) GLASS
6	K54GI
7	K54BI
8	K54FT
9	174
10	175
11	K54GB
12	PSUN PACKERS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

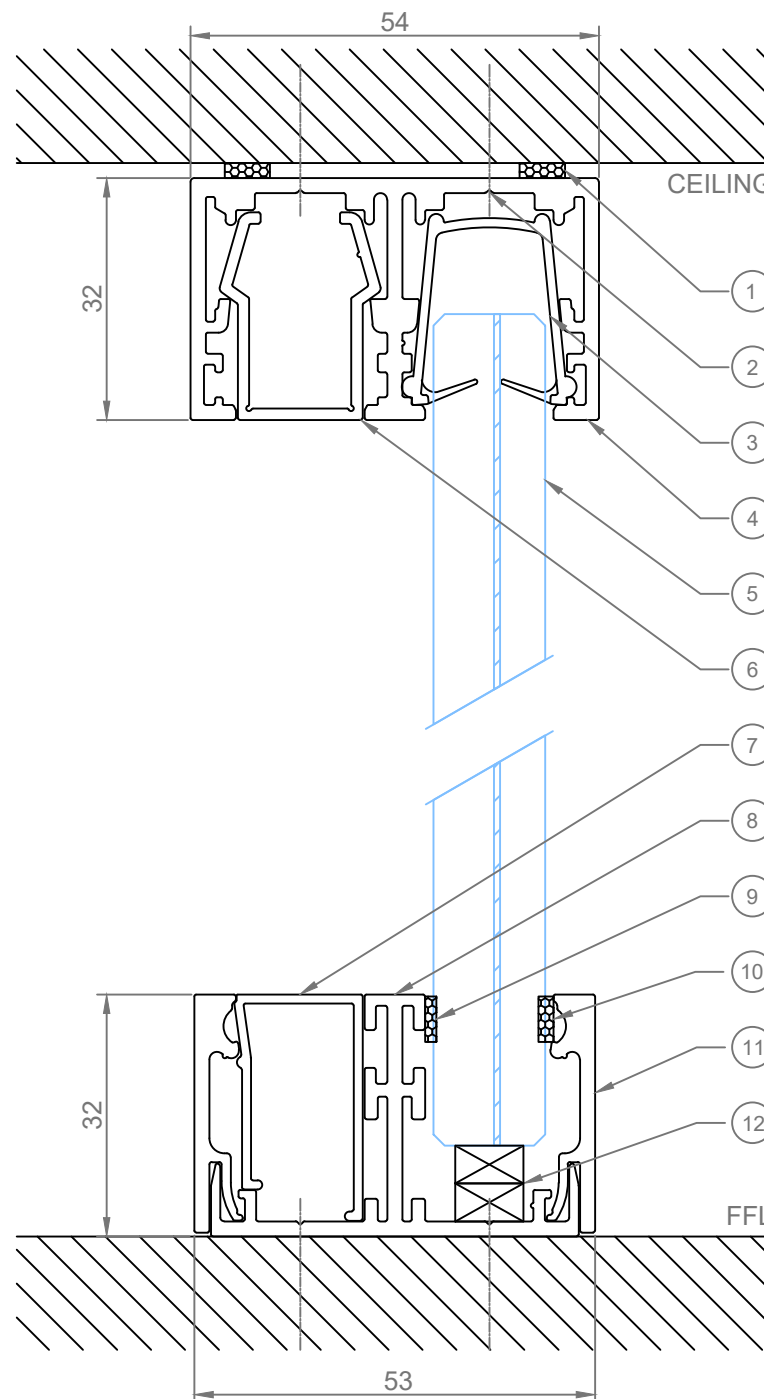
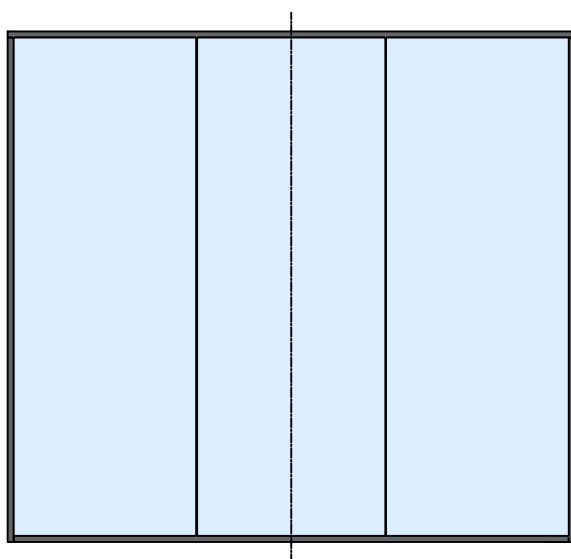
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-  Vertical Screen  
14.8mm Glass
-  0 min Integrity  
0 min Insulation
-  0 mm  
Deflection

DRAWING NO:  
K54-VS-02

DATE:  
10/03/22

SCALE:  
1:1

ISSUE NO:  
5



Glazed Module Parameters - 14.8mm Acoustic Laminated

Unit	Max. Height	Max. Width
Module Size	3000mm	1200mm
Glass Size	2970mm	1196mm
Glass Weight - 14.8mm Acoustic Laminated = 37kg/m <sup>2</sup>		



## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	SJ20
4	K54HT
5	13.5mm (T/Lam) GLASS
6	K54GI
7	K54BI
8	K54FT
9	175
10	K54GB
11	PSUN PACKERS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

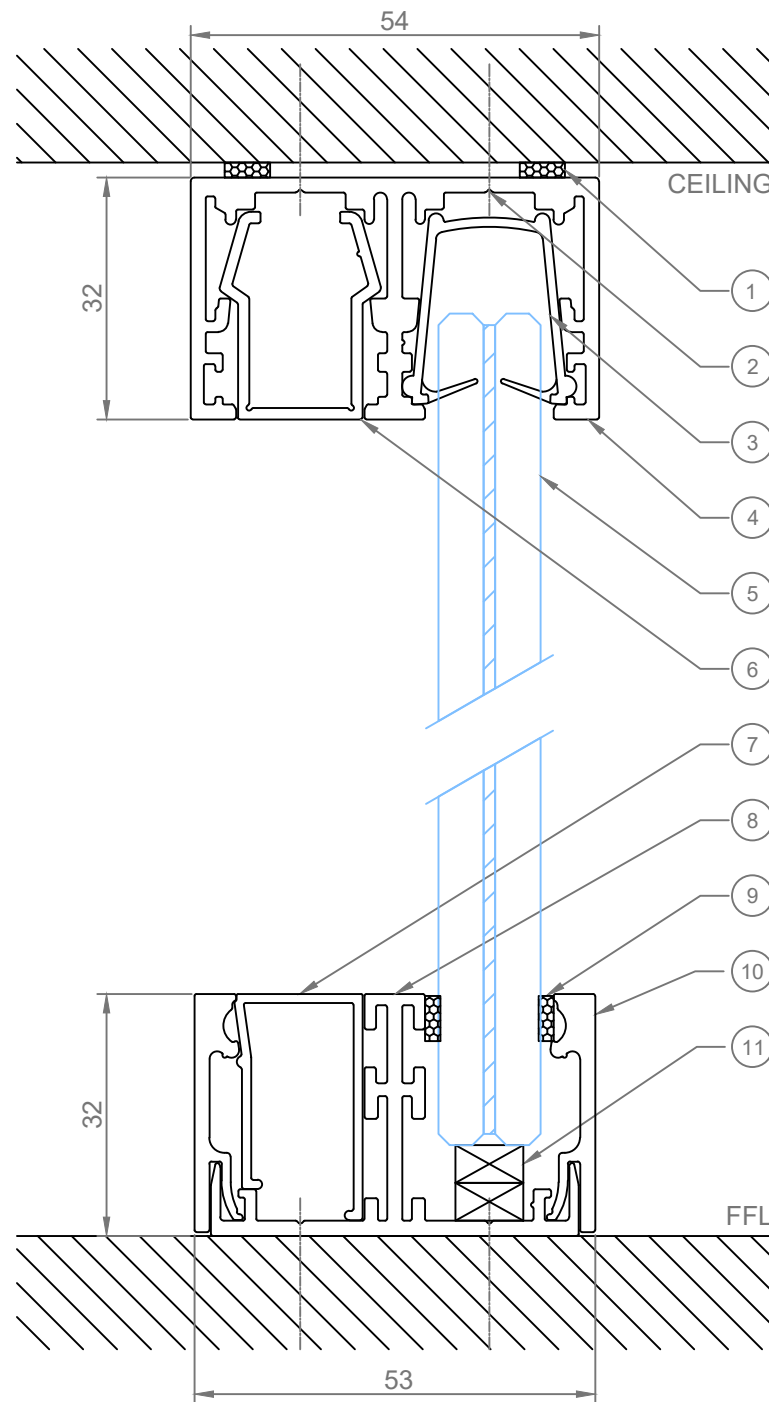
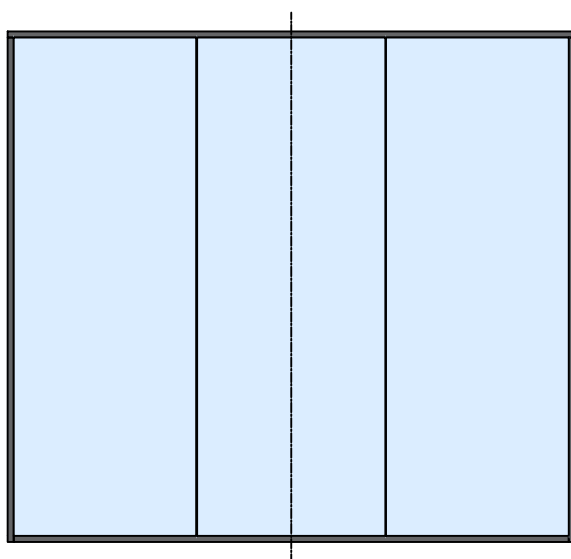
-  Offset Single Glazed
-  Vertical Screen  
13.5mm T/Lam. Glass
-  0 min Integrity  
0 min Insulation
-  0 mm  
Deflection

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DATE:  
10/03/22

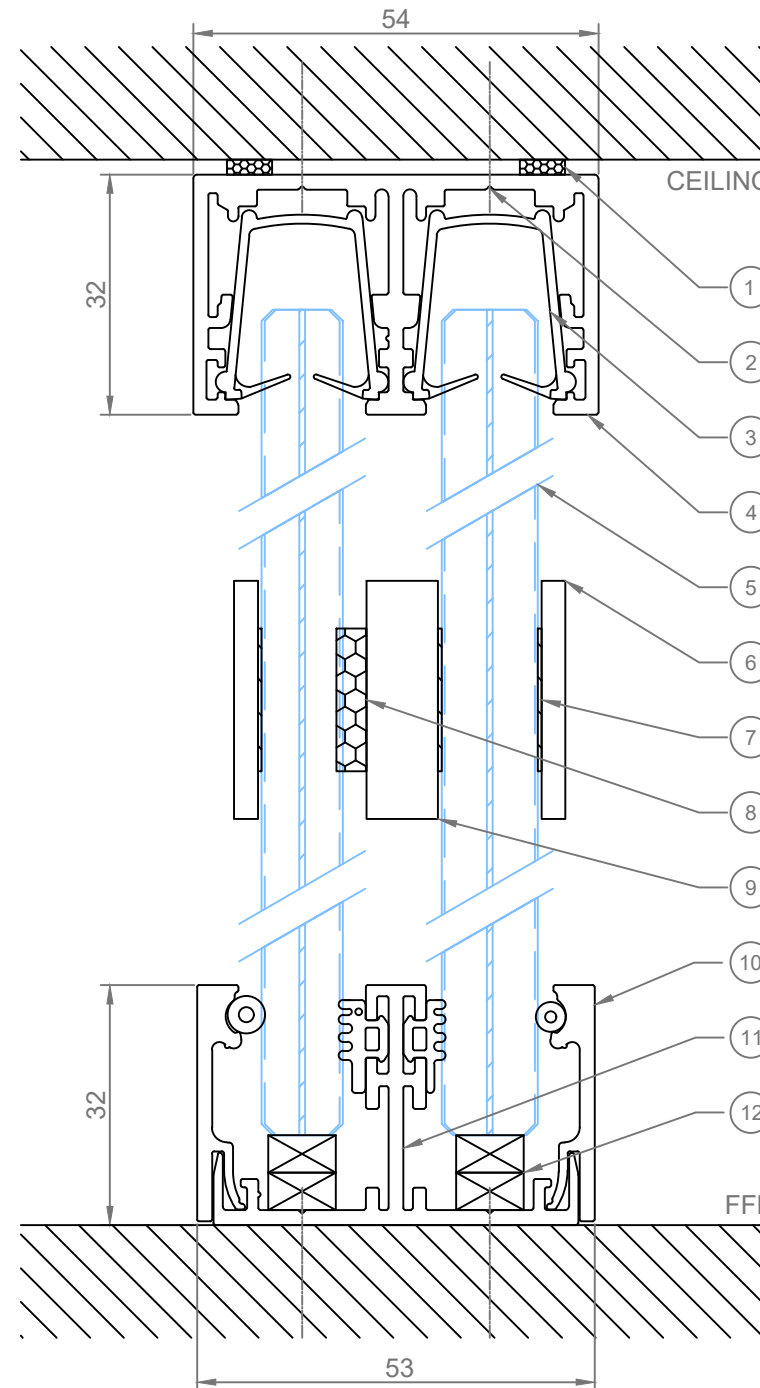
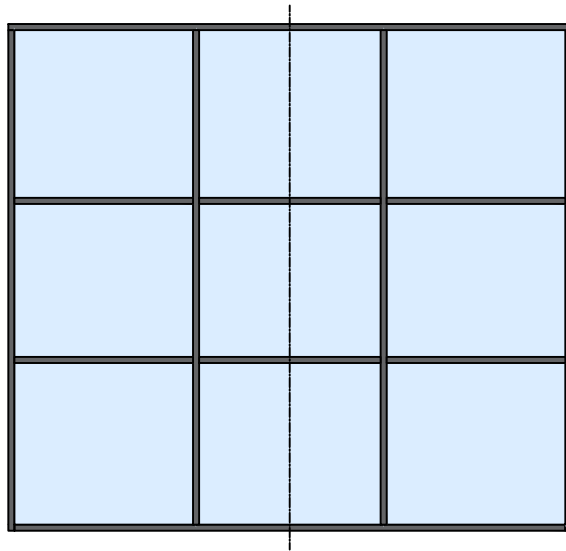
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2



Glazed Module Parameters - 13.5mm Toughened Laminated

Unit	Max. Height	Max. Width
Module Size	3000mm	1200mm
Glass Size	2970mm	1196mm
Glass Weight - 13.5mm Toughened Laminated = 34kg/m <sup>2</sup>		



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54





### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	SJ20
4	K54HT
5	10-14.8mm (CFT or Lam.) GLASS
6	109
7	TAPE19.1C
8	K54KGF
9	K54KGB
10	K54GB
11	K54FT
12	PSUN PACKERS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Double Glazed
-  Vertical Screen  
Cross Glaze Bars
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-VS-06

DATE:

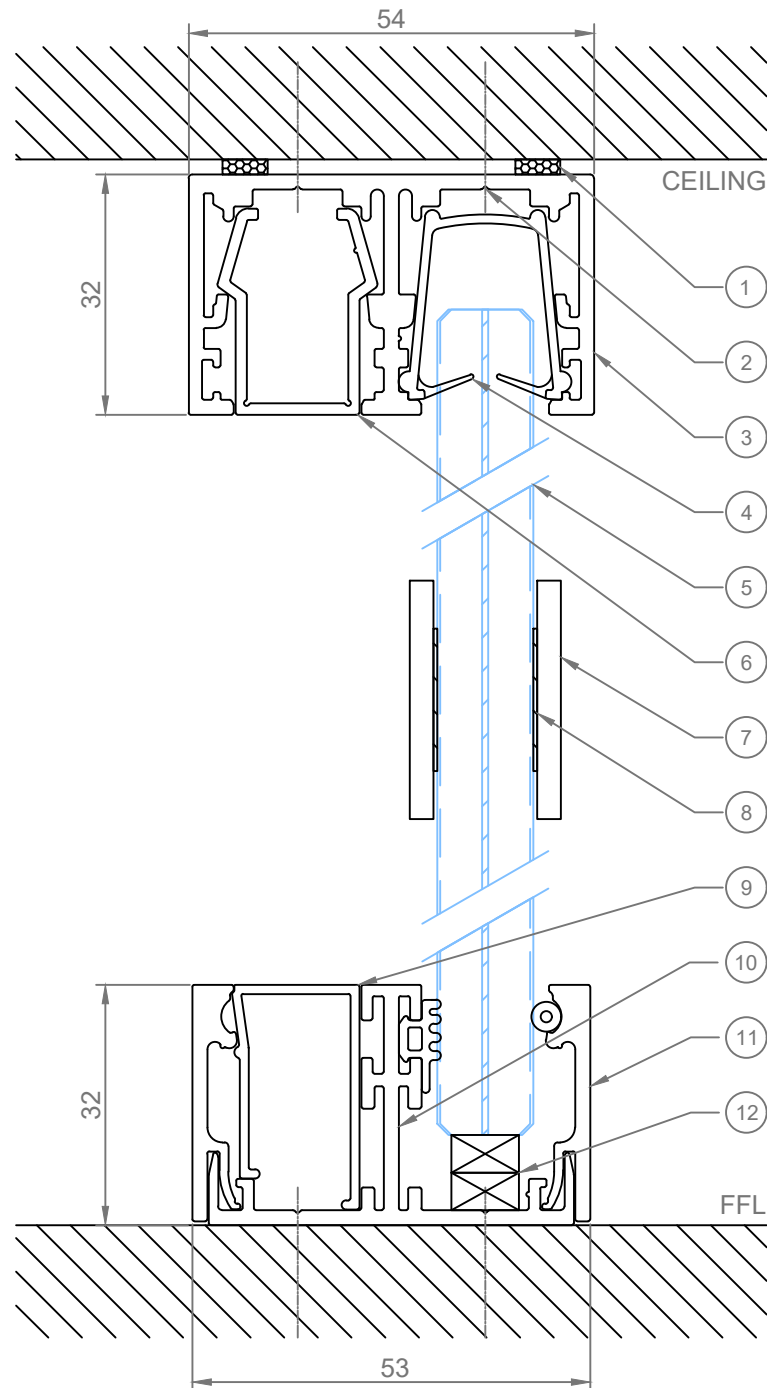
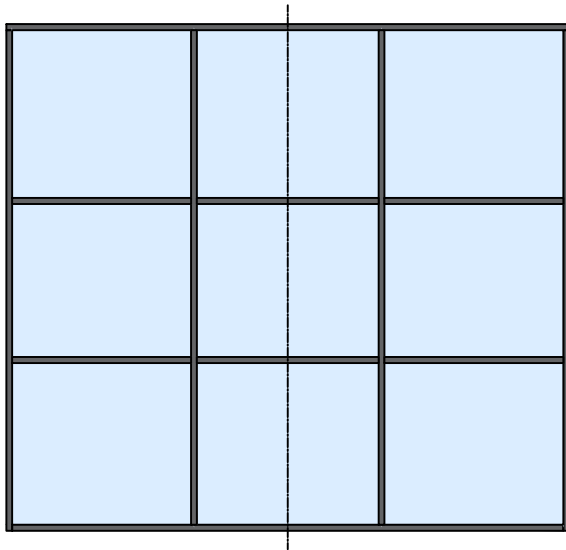
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SCALE:

1:1

ISSUE NO:

2



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	K54GI
7	109
8	TAPE19.1C
9	K54BI
10	K54FT
11	K54GB
12	PSUN PACKERS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Offset Single Glazed
-  Vertical Screen Cross Glaze Bars
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm Deflection

DRAWING NO:

K54-VS-07

DATE:

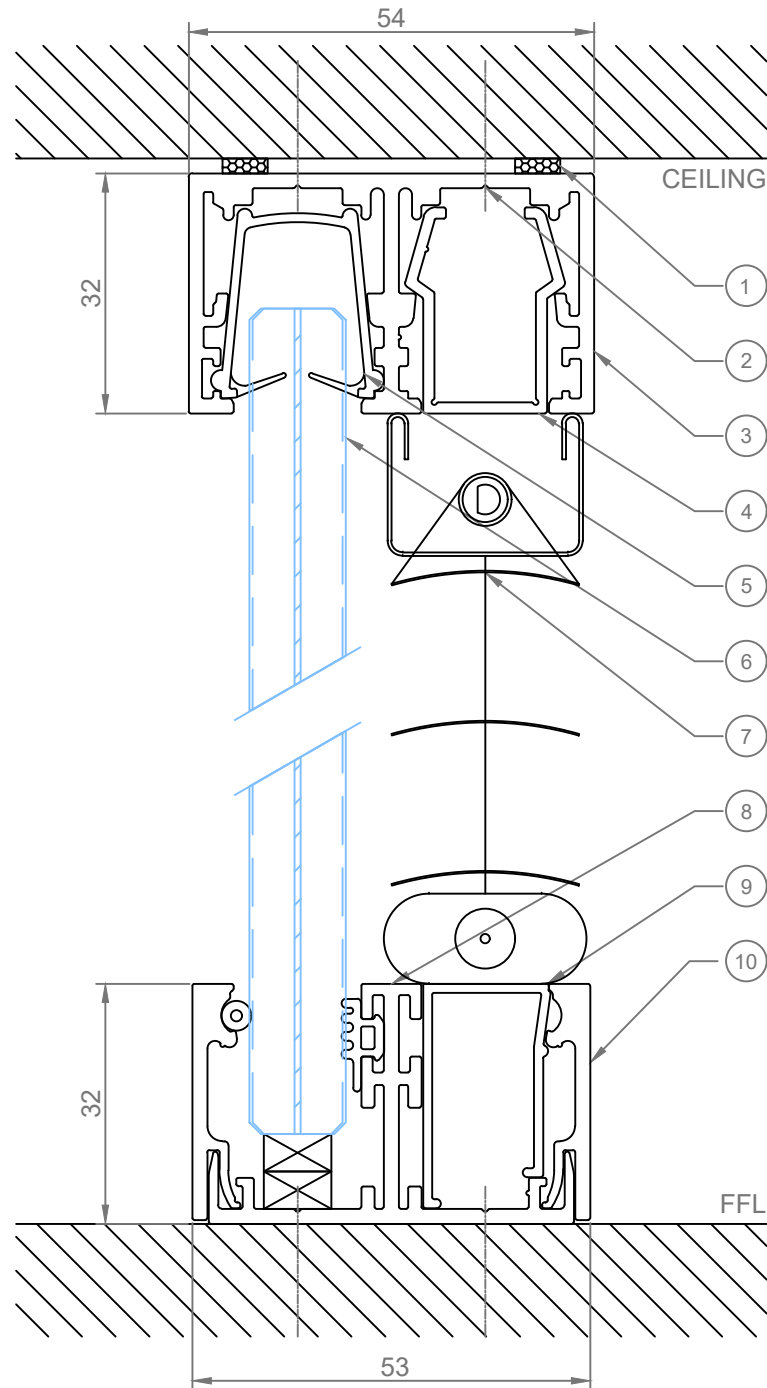
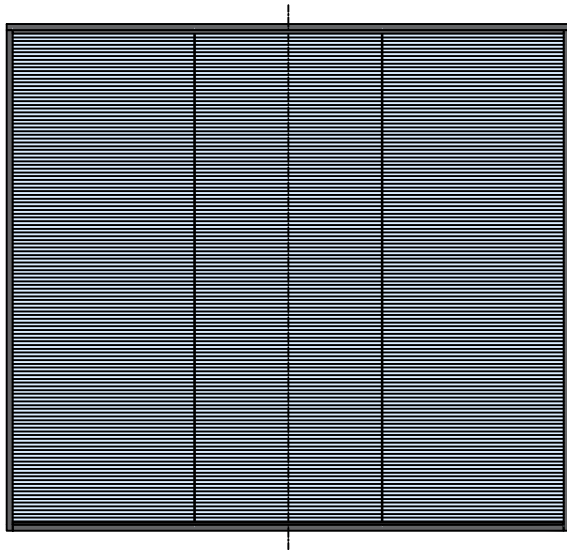
05/05/21

SCALE:

1:1

ISSUE NO:

2



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54





### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	K54GI
5	SJ20
6	10-14.8mm (CFT or Lam.) GLASS
7	BLINDS
8	K54FT
9	K54BI
10	K54GB

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Offset Single Glazed
-  Vertical Screen  
Offset Blinds
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-VS-08

DATE:

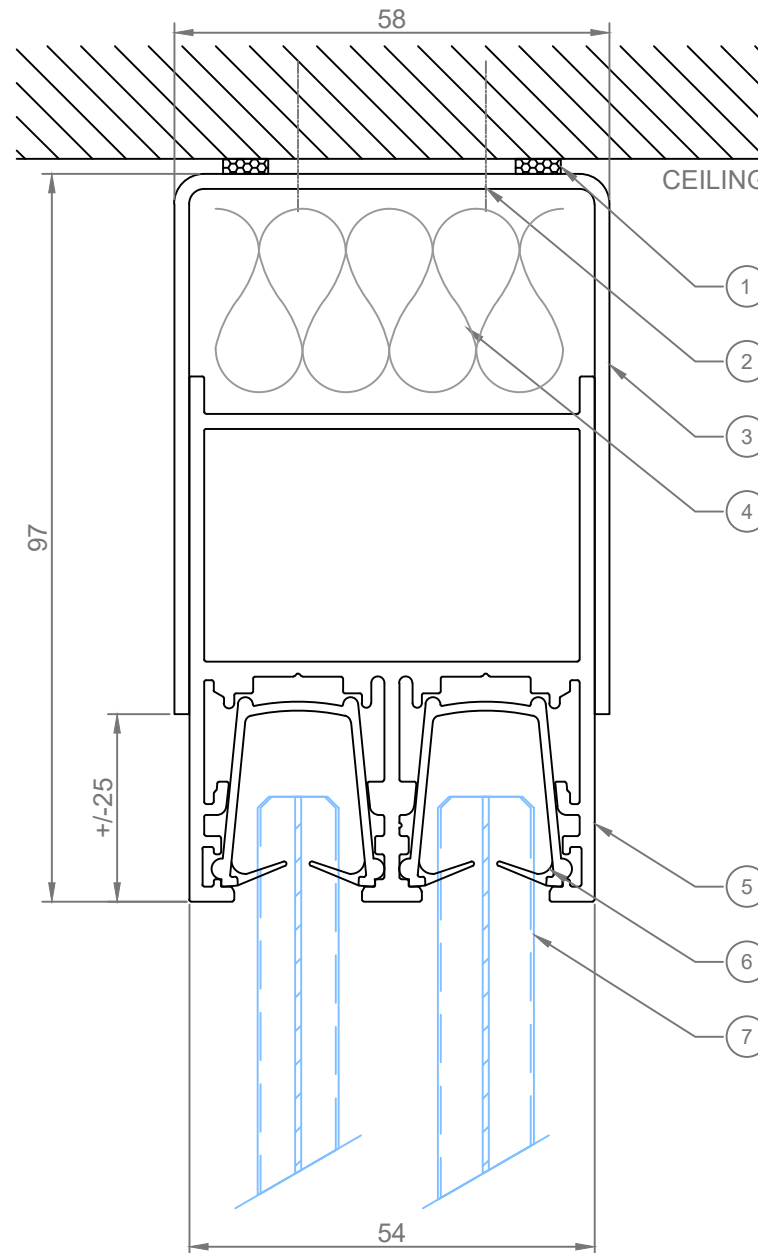
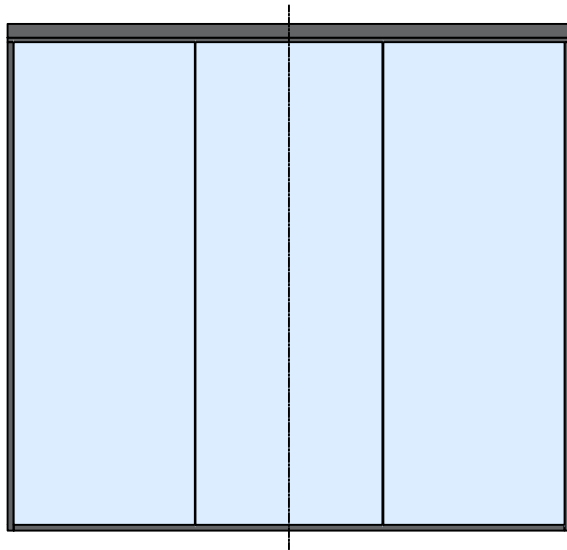
05/05/21

SCALE:

1:1

ISSUE NO:

2



## Polar 54





COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DHC
4	881S50
5	K54DH
6	SJ20
7	10-14.8mm (CFT or Lam.) GLASS

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed
-  Deflection Head Over Screen
-  0 min Integrity  
0 min Insulation
-  +/- 25 mm  
Deflection

DRAWING NO:  
K54-VS-03

DATE:  
05/05/21

SCALE:  
1:1

ISSUE NO:  
3





## Polar 54

COMPONENT KEY:

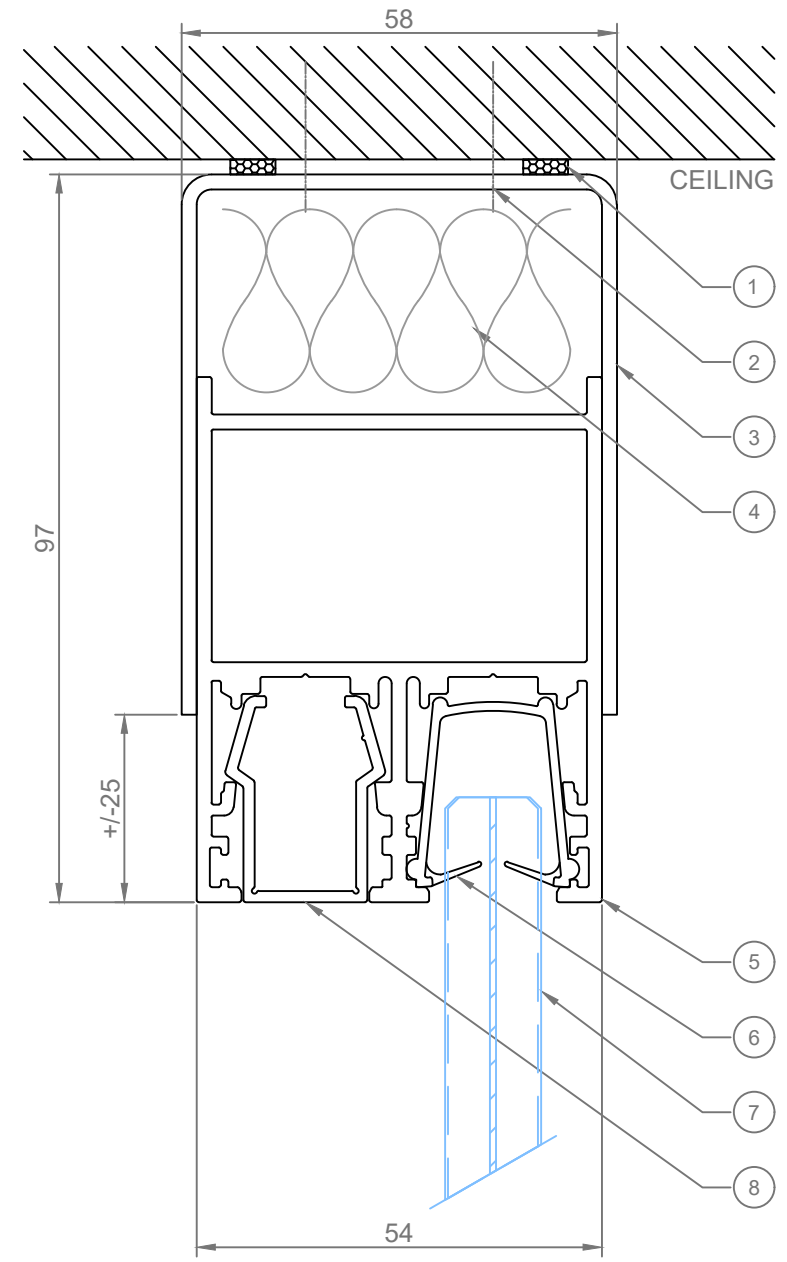
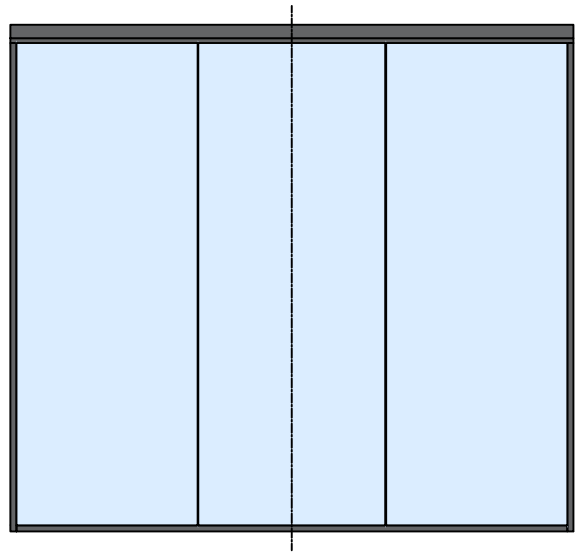
1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DHC
4	881S50
5	K54DH
6	SJ20
7	10-14.8mm (CFT or Lam.) GLASS
8	K54GI

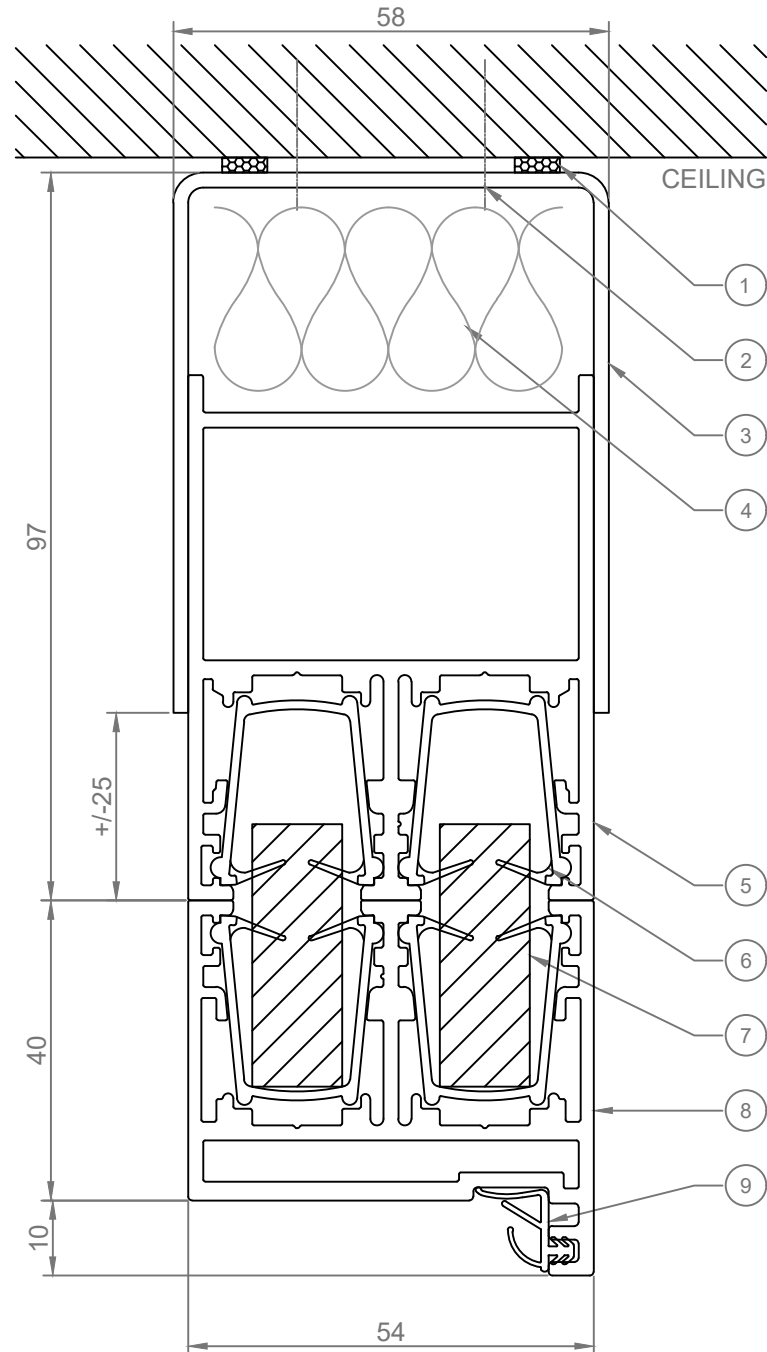
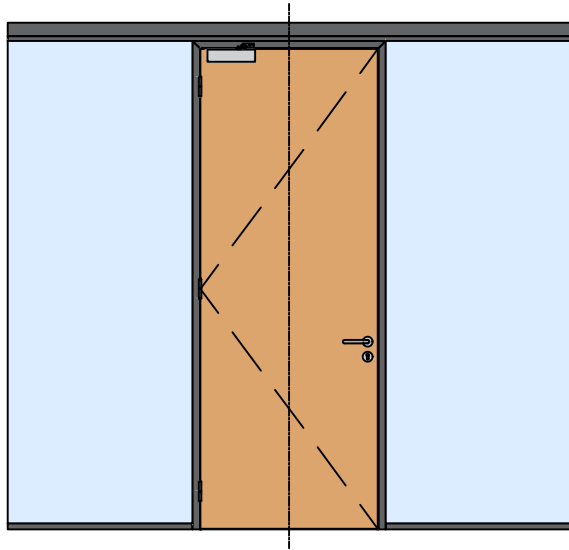
NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

	Offset Single Glazed
	Deflection Head Over Screen
	0 min Integrity 0 min Insulation
	+/-25 mm Deflection

DRAWING NO: <b>K54-VS-04</b>	DATE: <b>05/05/21</b>
SCALE: <b>1:1</b>	ISSUE NO: <b>3</b>





## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DHC
4	881S50
5	K54DH
6	SJ20
7	SJ69
8	K54DF
9	K54DS

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

- Double Glazed  
Offset Single Glazed
- Deflection Head  
Over Door Frame
- 0 min Integrity  
0 min Insulation
- +/-25 mm  
Deflection

DRAWING NO:  
K54-VS-05

DATE:  
05/05/21

SCALE:  
1:1

ISSUE NO:  
3

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DHC
4	881S50
5	K54DH
6	SJ20
7	SJ69
8	K54DF
9	K54DS

### NOTES:

IN CONFIGURATIONS WITH A DOOR FRAME AND DEFLECTION HEAD:

SONIK DOORS MUST BE FULL HEIGHT

GLASS DOORS MUST BE FULL HEIGHT

TIMBER DOORS CAN BE FULL HEIGHT OR WITH A TIMBER OVER PANEL

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

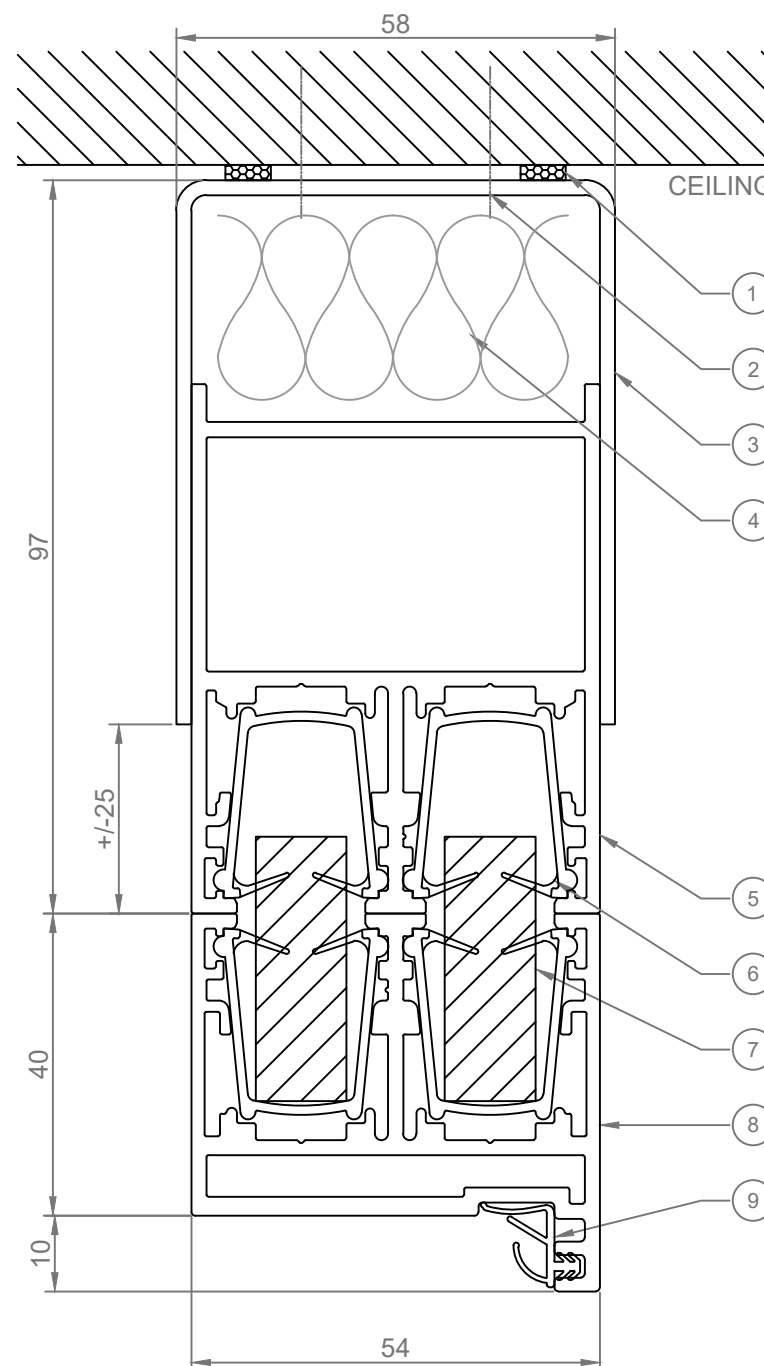
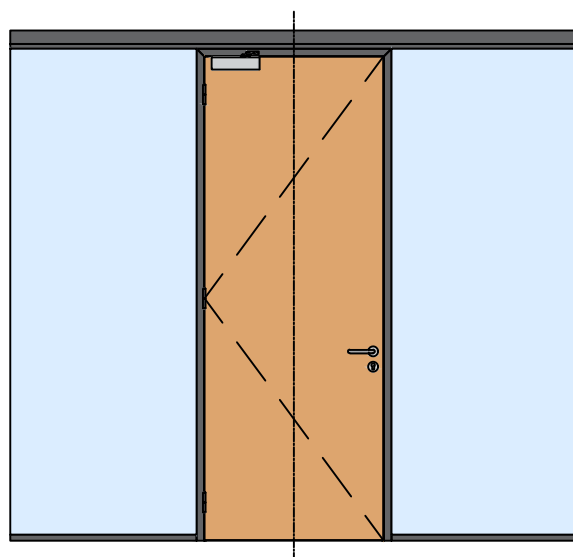
-  Double Glazed  
Offset Single Glazed
-  Deflection Head  
Over Door Frame
-  0 min Integrity  
0 min Insulation
-  +/- 25 mm  
Deflection

DRAWING NO:  
K54-VS-05

DATE:  
10/03/22

SCALE:  
1:1

ISSUE NO:  
4





## Polar 54





### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	K54FT
7	K54GB
8	K54BG4B (12-12.8mm GLASS)
9	SJ26.12B (12-12.8mm GLASS)
10	SJ26.10B (10-10.8mm GLASS)
11	K54BG5B (10-10.8mm GLASS)

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Double Glazed
-  Horizontal Screen Wall Abutments
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm Deflection

DRAWING NO:

K54-HS-01

DATE:

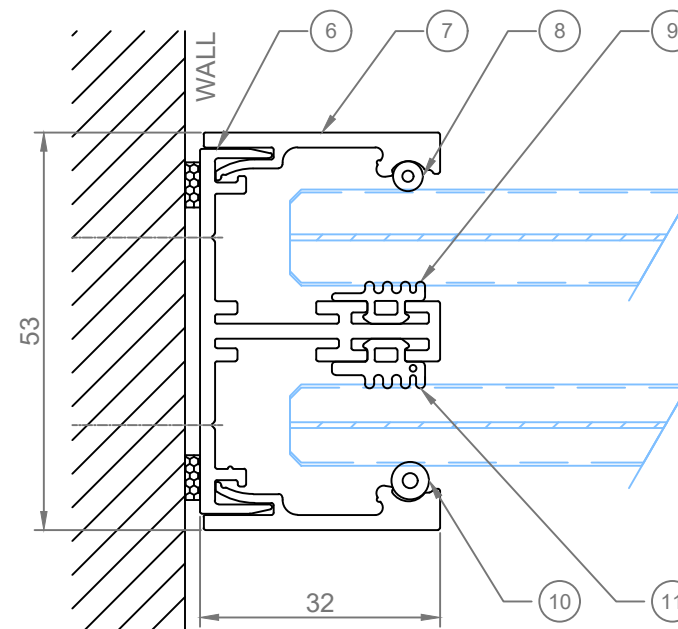
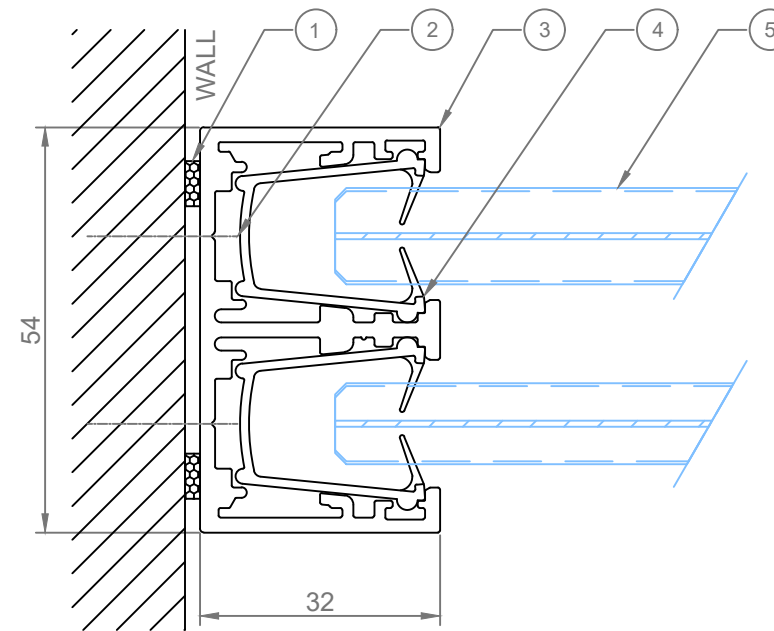
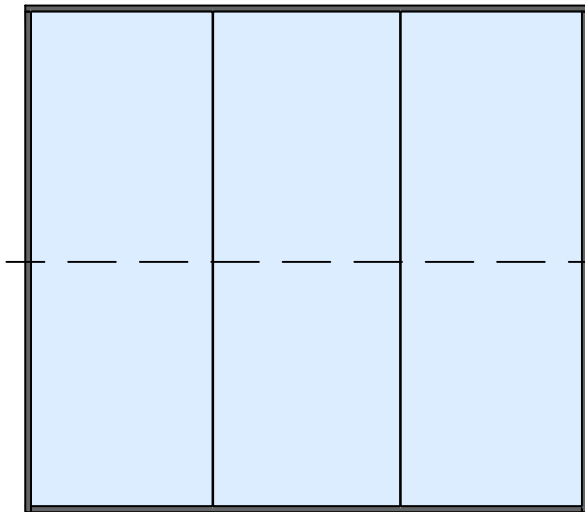
05/05/21

SCALE:

1:1

ISSUE NO:

4



Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54




COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	K54FT
7	K54GB
8	175 (13.5-14.8mm GLASS)
9	174 (14.8mm GLASS)
10	K54GI
11	K54BI

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Offset Single Glazed
-  Horizontal Screen Wall Abutments
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm Deflection

DRAWING NO:

K54-HS-02

DATE:

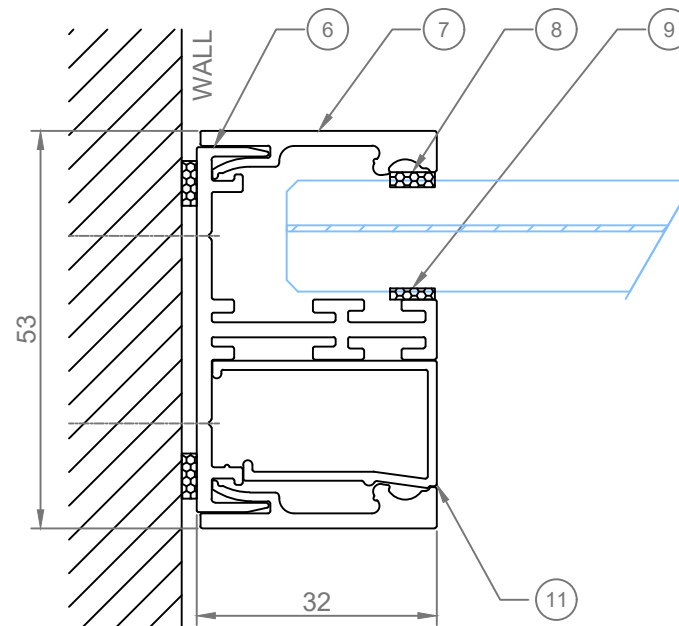
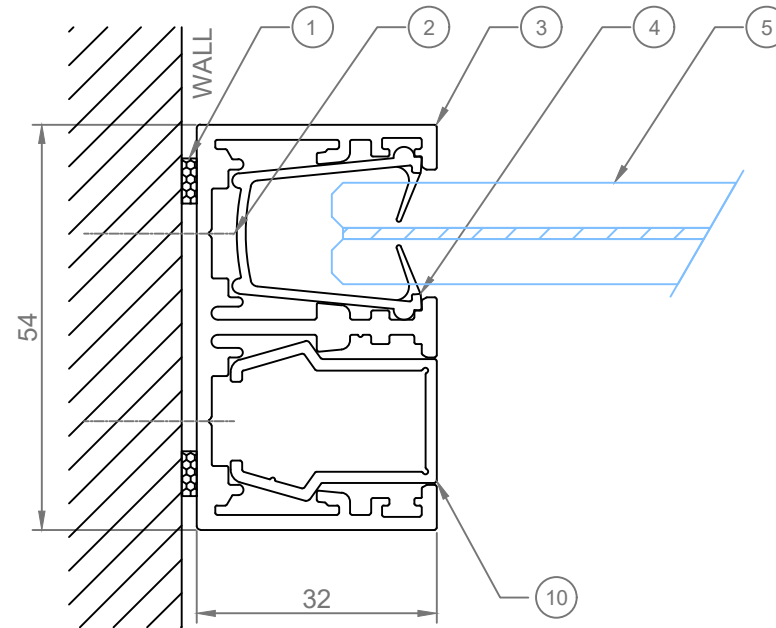
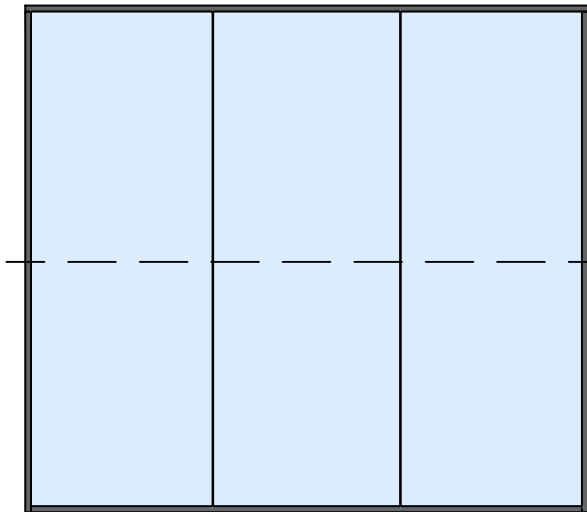
05/05/21

SCALE:

1:1

ISSUE NO:

4



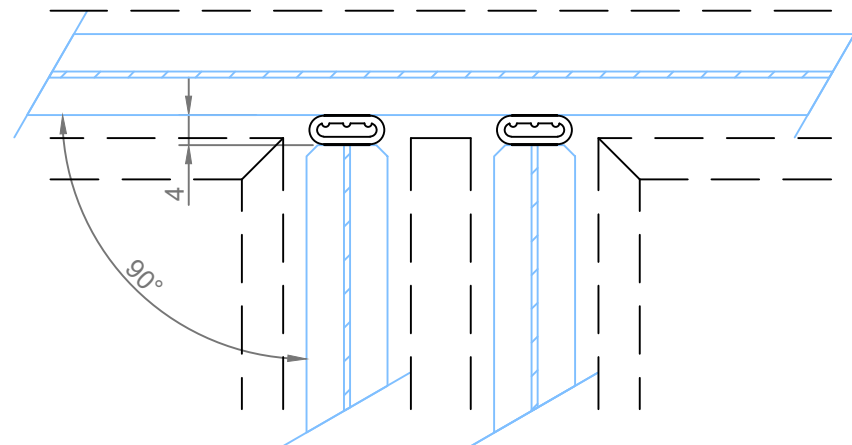
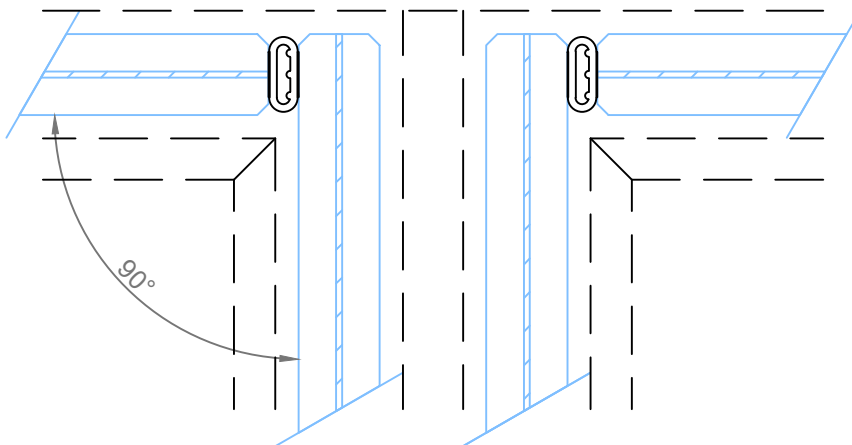
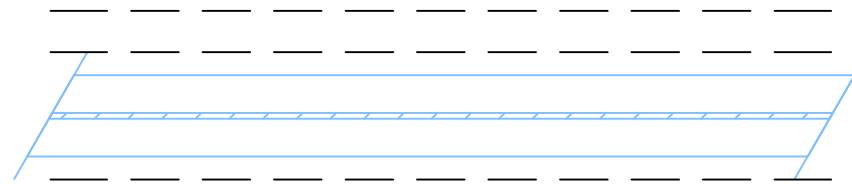
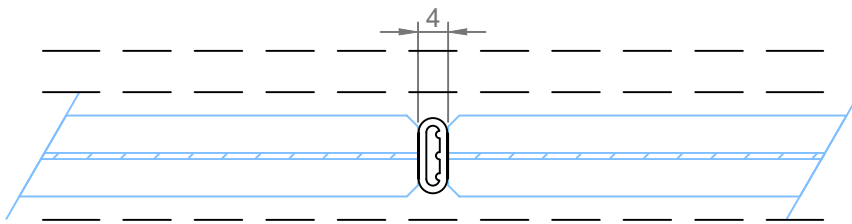
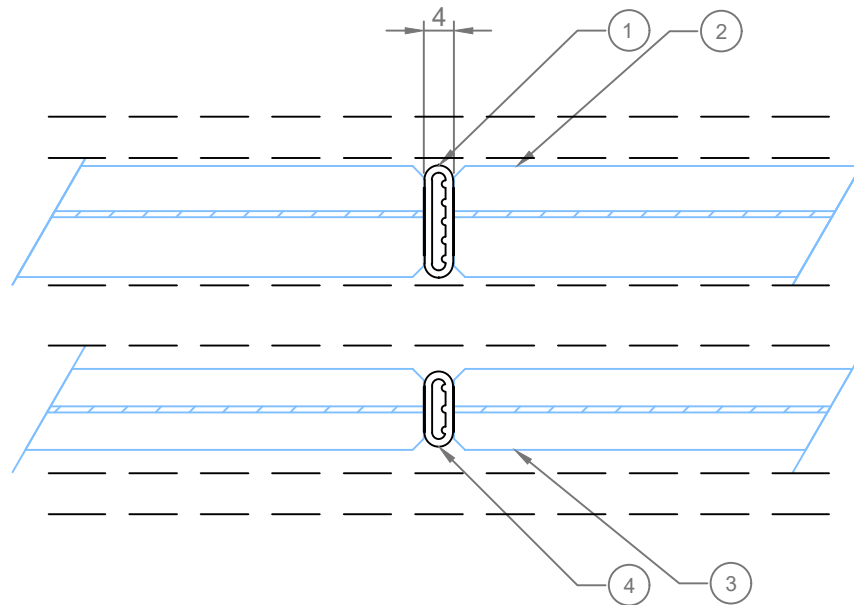
Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

COMPONENT KEY:

1	K35BJ (13.5-14.8mm GLASS)
2	13.5-14.8 mm (T/ or A/Lam.) GLASS
3	10-12.8 mm (CFT or Lam.) GLASS
4	SJ34 (10-12.8mm GLASS)



NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed
-  Horizontal Screen Glazing Joints
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm Deflection

DRAWING NO:  
K54-HS-05

DATE:  
05/05/21

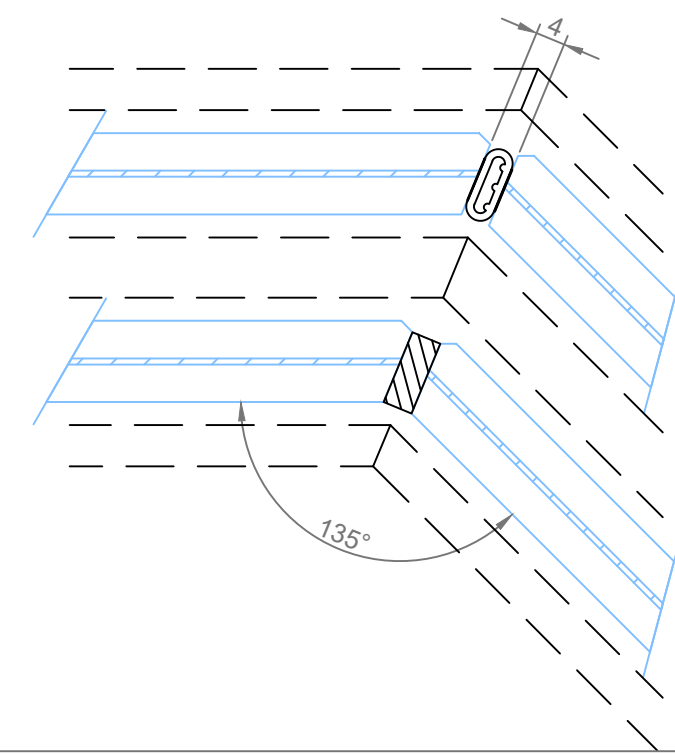
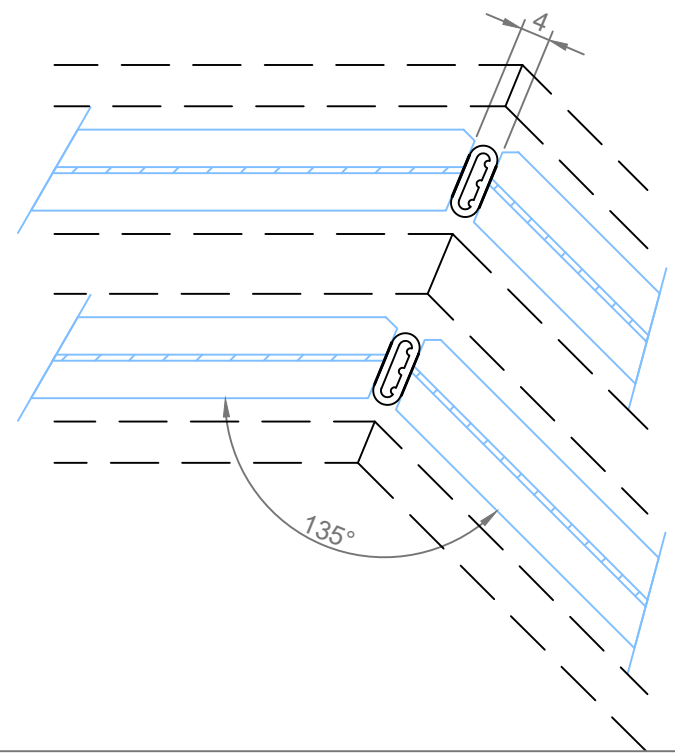
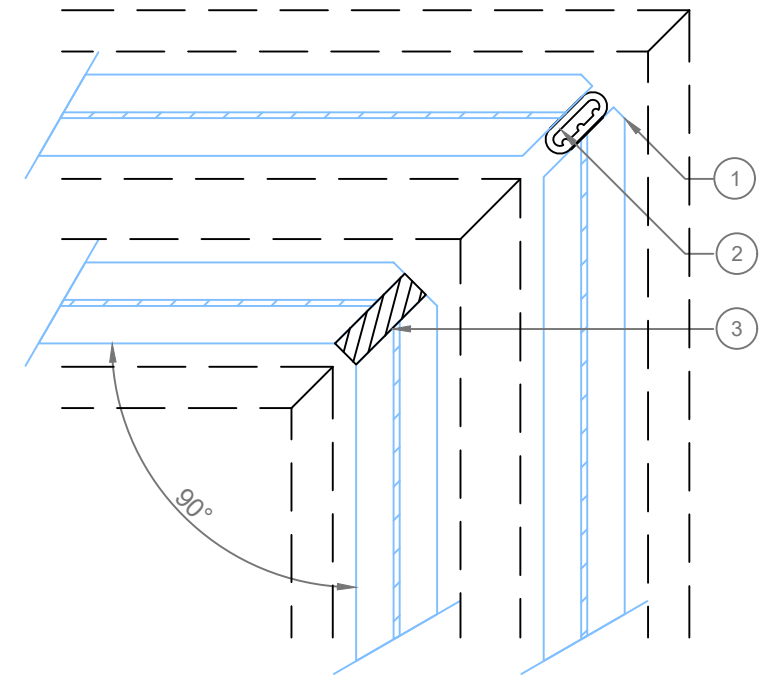
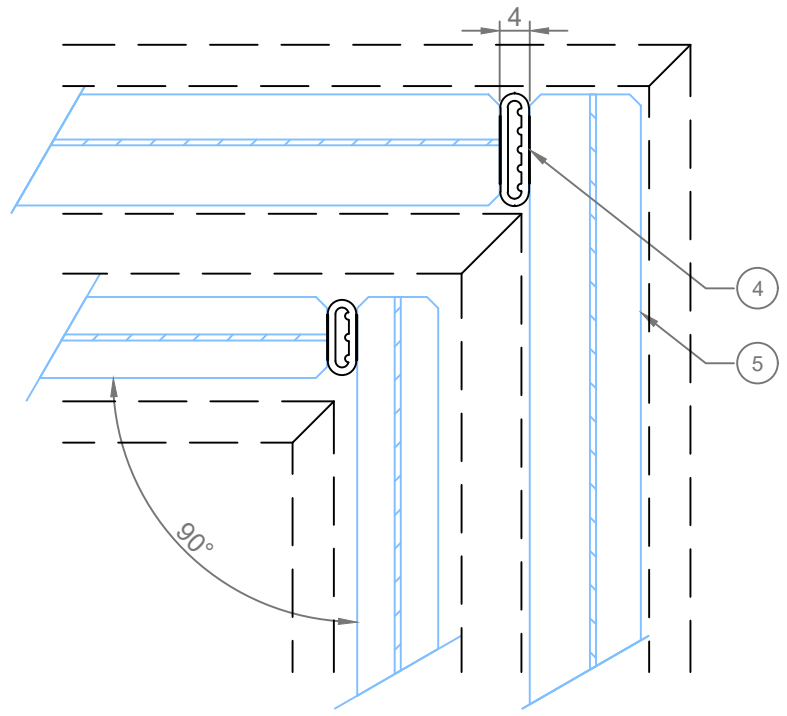
SCALE:  
1:1

ISSUE NO:  
4





## Polar 54

COMPONENT KEY:

1	10-12.8 mm (CFT or Lam.) GLASS
2	SJ34 (10-12.8mm GLASS)
3	SILICONE JOINT
4	K35BJ (13.5-14.8mm GLASS)
5	13.5-14.8 mm (T/ or A/Lam.) GLASS



NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
-  Double Glazed
  -  Horizontal Screen Glazing Joints
  -  0 min Integrity  
0 min Insulation
  -  0 mm Deflection

DRAWING NO: K54-HS-06  
SCALE: 1:1





DATE: 05/05/21  
ISSUE NO: 4

## Polar 54

COMPONENT KEY:

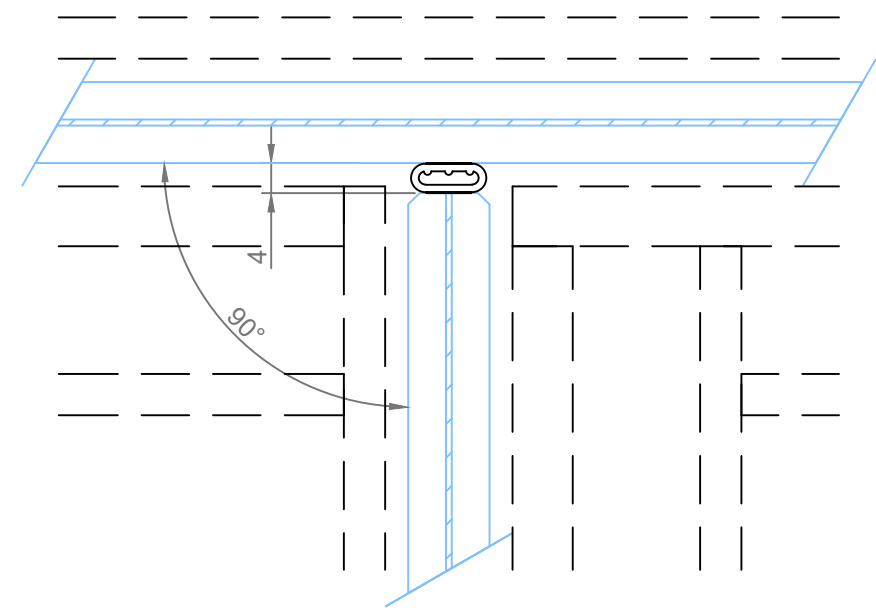
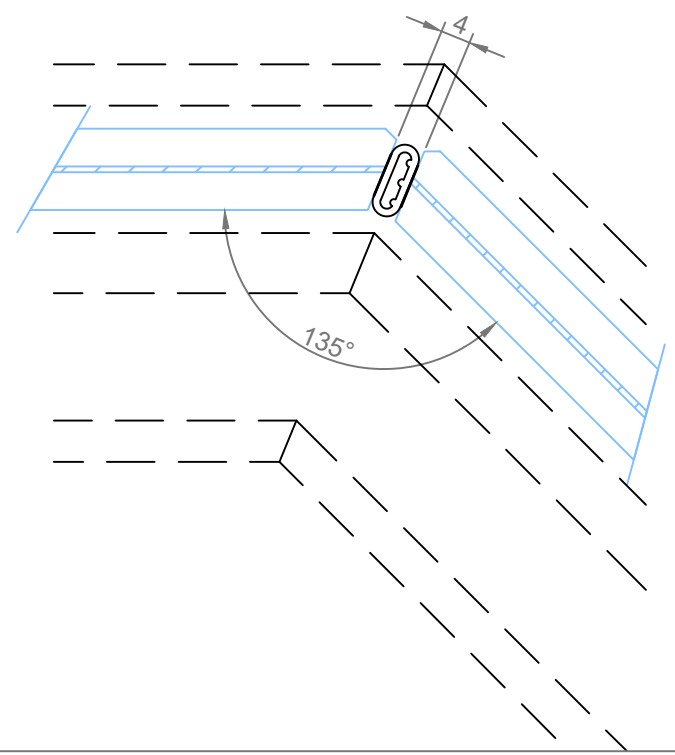
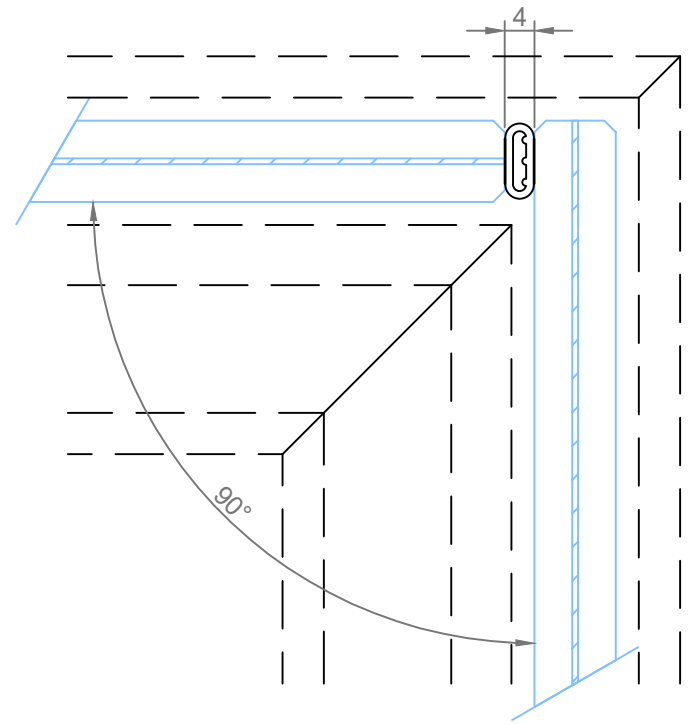
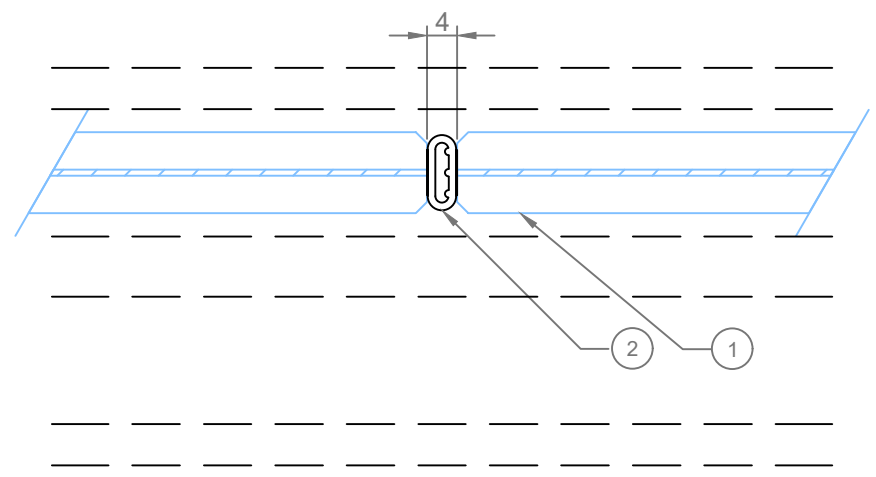
1	10-12.8 mm (CFT or A/Lam) GLASS
2	SJ34

NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
-  Offset Single Glazed
  -  Glazing Joints
  -  0 min Integrity  
0 min Insulation
  -  +/- 0 mm  
Deflection

DRAWING NO: K54-HS-07      DATE: 09/06/21

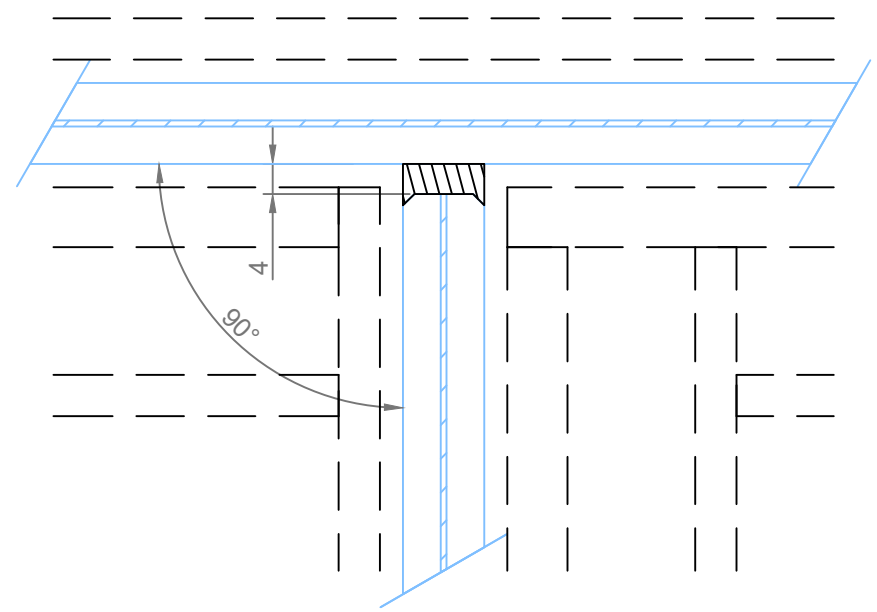
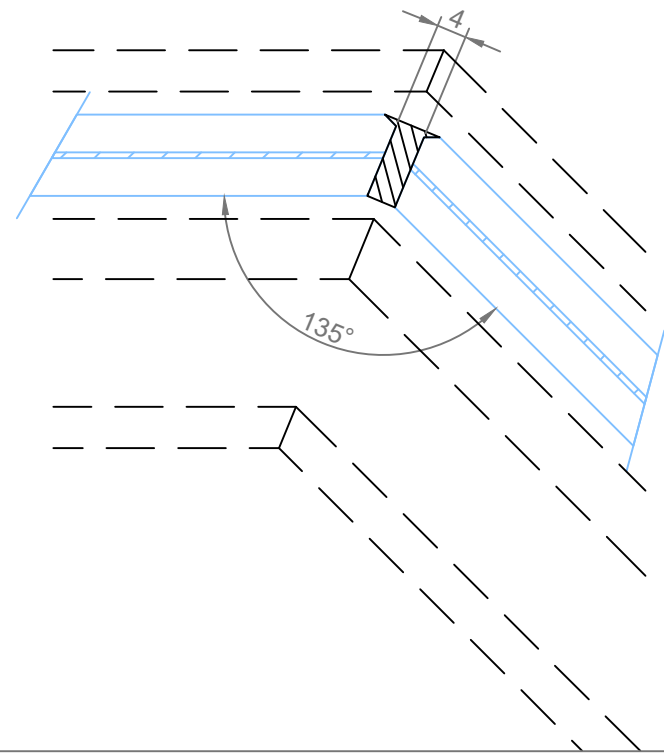
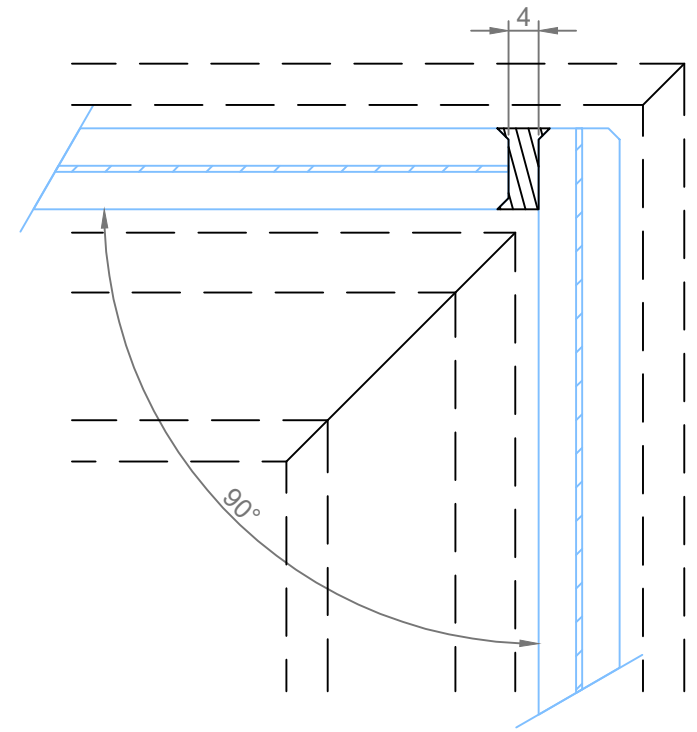
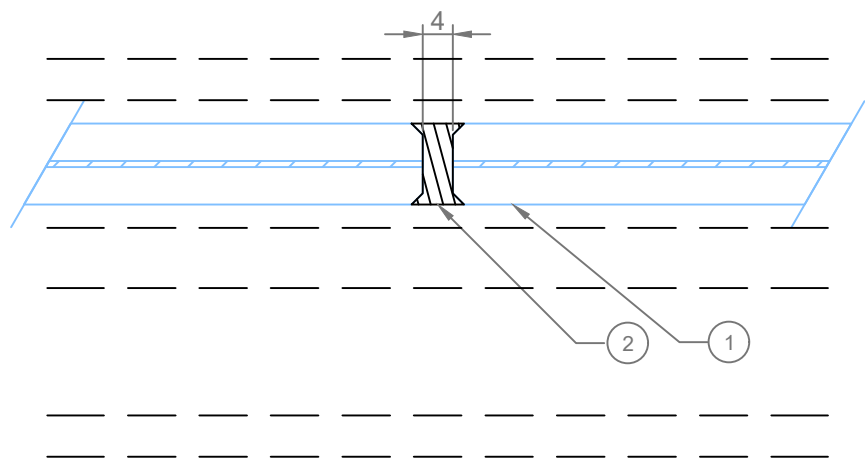
SCALE: 1:1      ISSUE NO: 4







## Polar 54

COMPONENT KEY:

1	10-14.8 mm (CFT or Lam.) GLASS
2	SILICONE JOINT



NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
-  Offset Single Glazed
  -  Glazing Joints
  -  0 min Integrity  
0 min Insulation
  -  +/- 0 mm  
Deflection

DRAWING NO: K54-HS-08      DATE: 09/06/21

SCALE: 1:1      ISSUE NO: 3





## Polar 54

COMPONENT KEY:

1	13.5-1.8 mm (T/ or A/Lam) GLASS
2	K35BJ

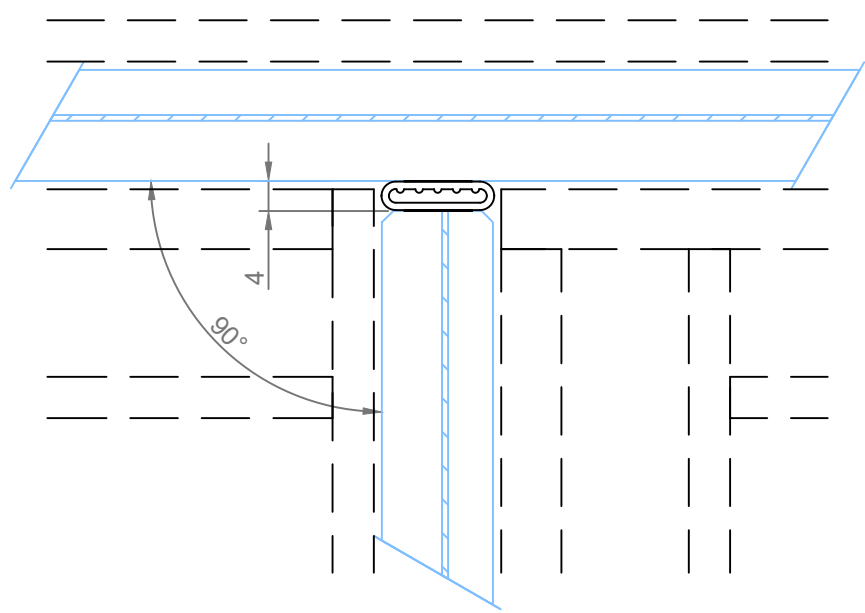
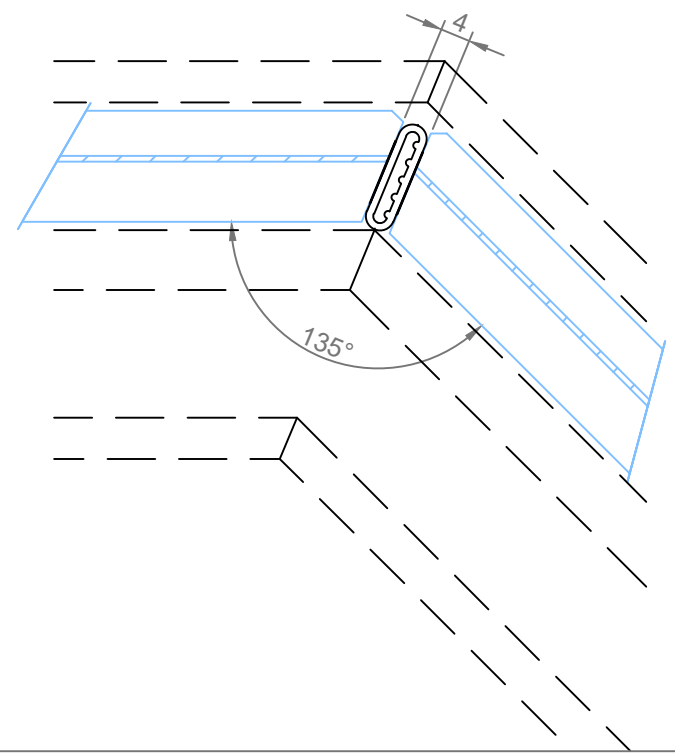
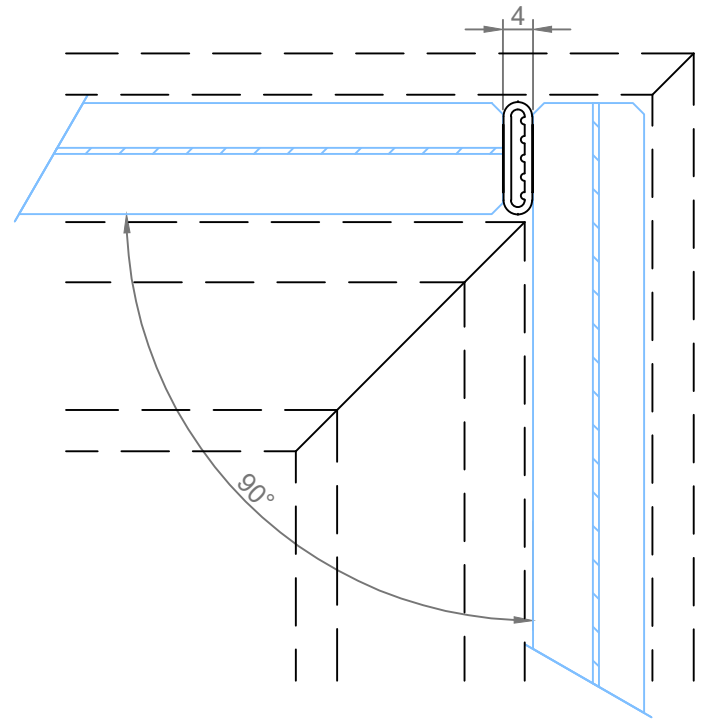
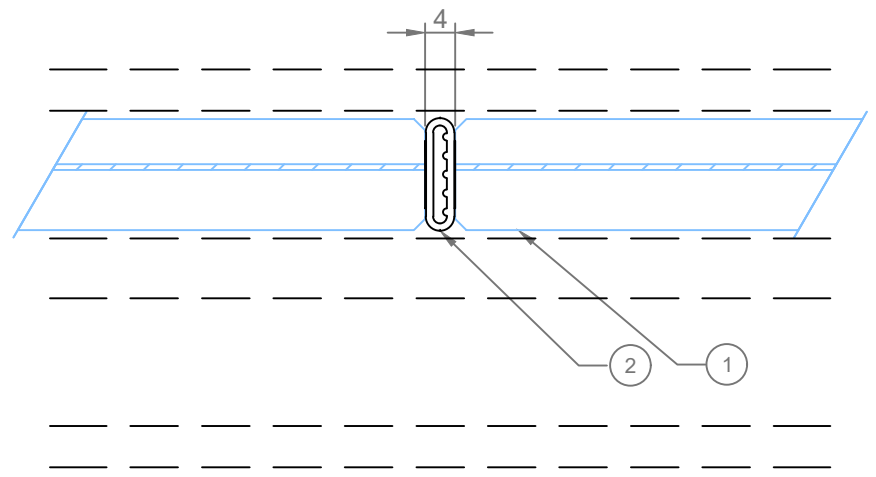
NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

	Offset Single Glazed
	Glazing Joints
	0 min Integrity 0 min Insulation
	0 mm Deflection

DRAWING NO: K54-HS-16      DATE: 09/07/21

SCALE: 1:1      ISSUE NO: 1



## Polar 54

COMPONENT KEY:

1	109
2	TAPE19.1C
3	K35BJ
4	13.5-14.8mm (T/ or A/ Lam.) GLASS
5	K54KGB
6	K54KGF
7	10-12.8mm (CFT or Lam.) GLASS
8	SJ34

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

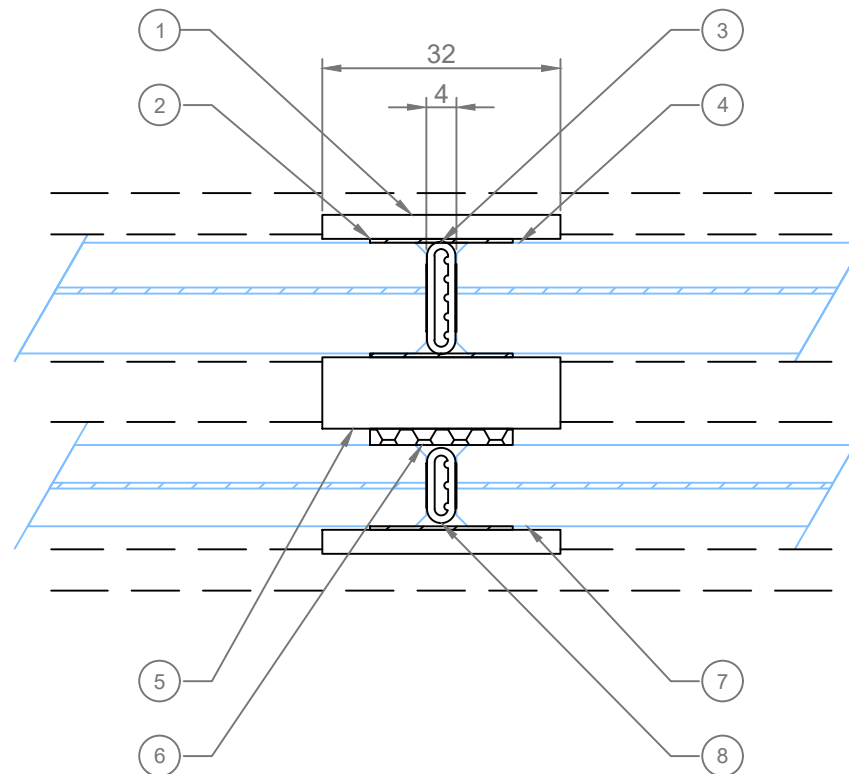
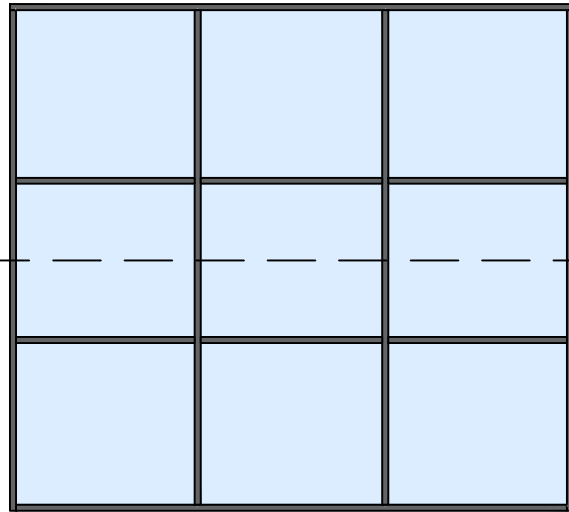
-  Double Glazed
-  Horizontal Screen  
Cross Glaze Bars
-  0 min Integrity  
0 min Insulation
-  0 mm  
Deflection

DRAWING NO:  
K54-HS-17

DATE:  
13/07/21

SCALE:  
1:1

ISSUE NO:  
1



Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		



## Polar 54

COMPONENT KEY:

1	K54HT
2	SJ20
3	10-14.8mm (CFT or Lam.) GLASS
4	K54GI

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Screen  
Fair End
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-HS-15

DATE:

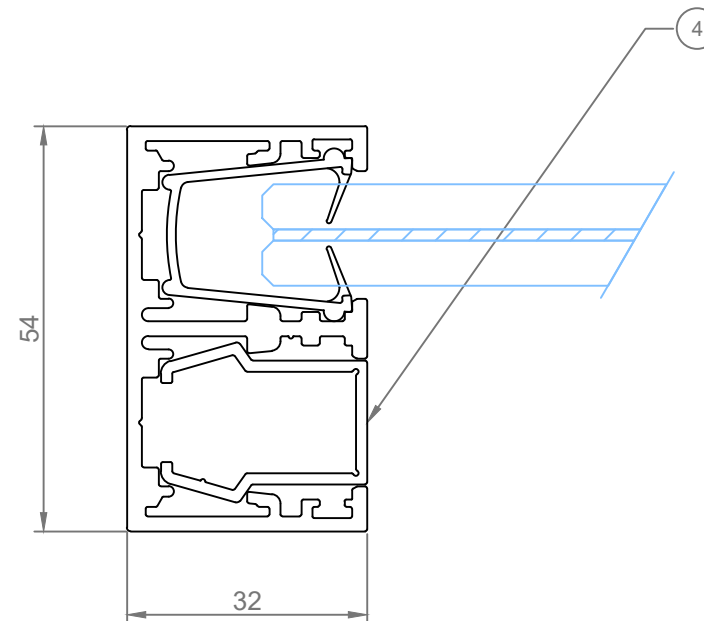
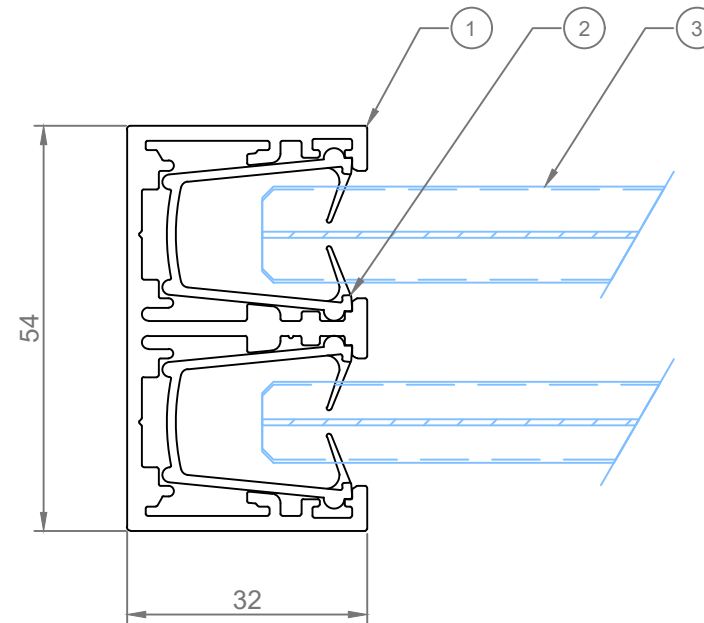
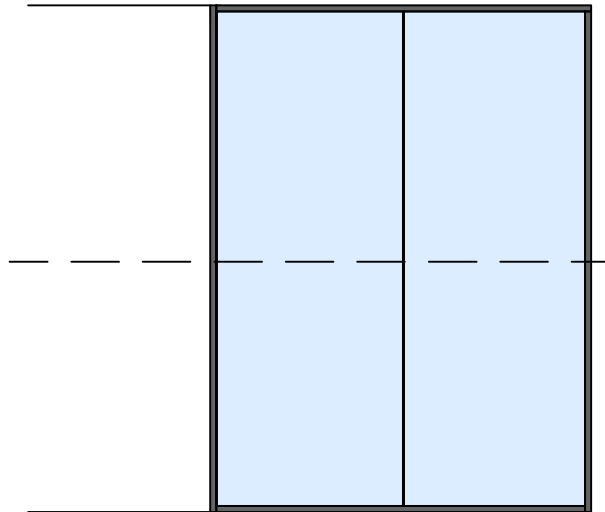
14/06/21

SCALE:

1:1

ISSUE NO:

1



Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

### COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54WA75
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Double Glazed
-  Horizontal Screen  
75mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-HS-11

DATE:

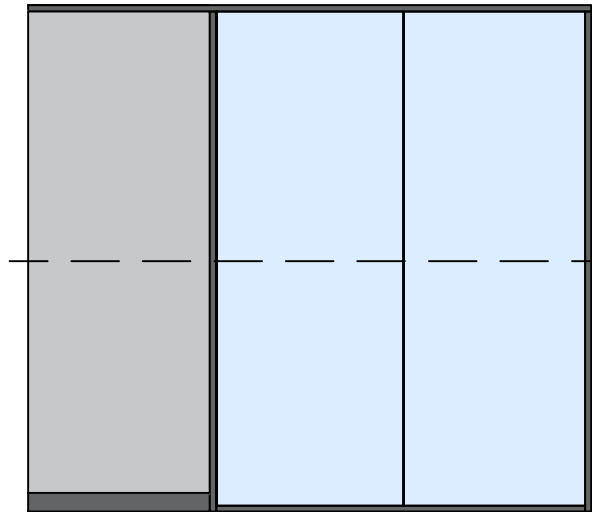
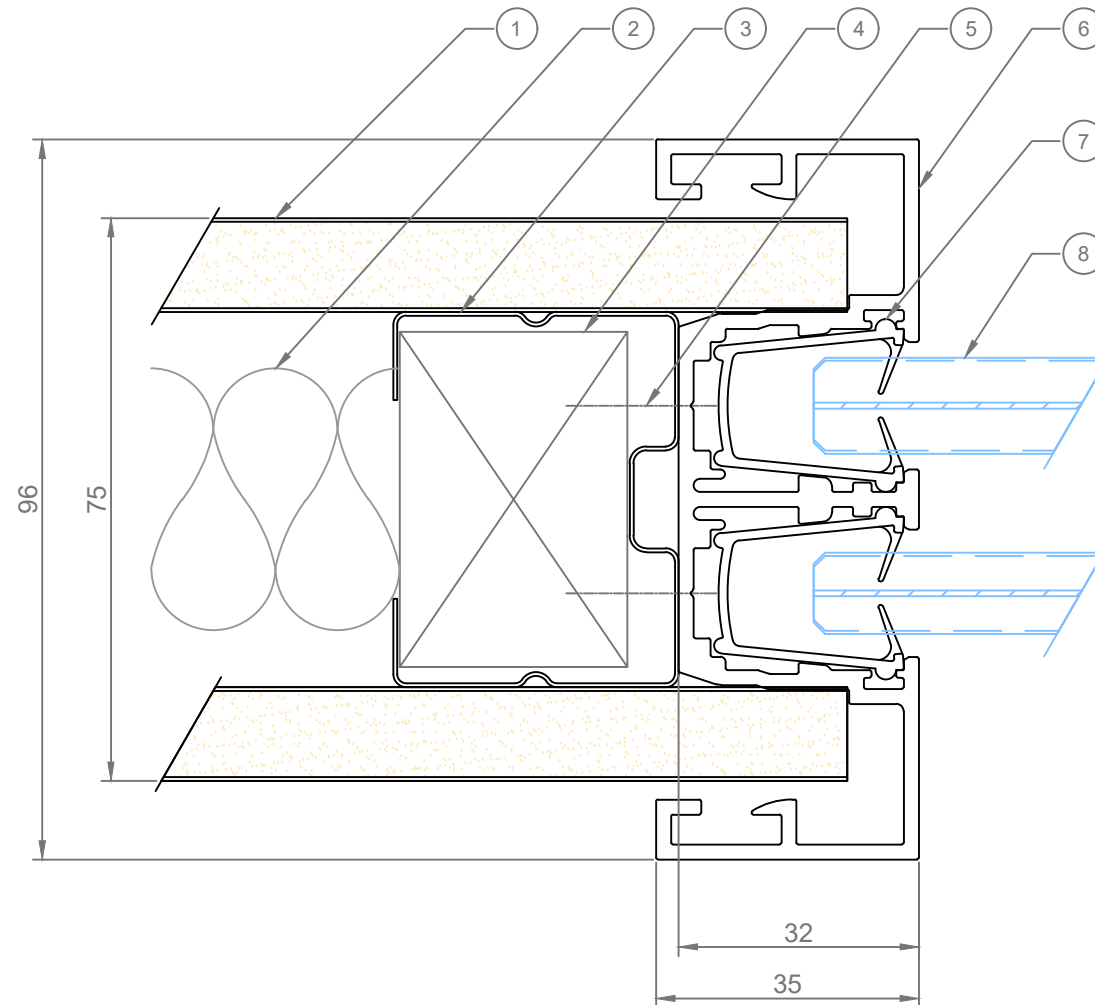
09/06/21

SCALE:

1:1

ISSUE NO:

2



### Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

### COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54WA75
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS
9	K54GI

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Single Offset Glazed
-  Horizontal Screen  
75mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-HS-12

DATE:

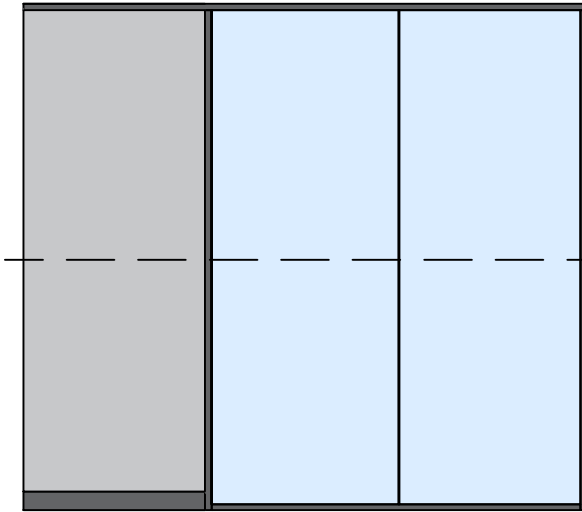
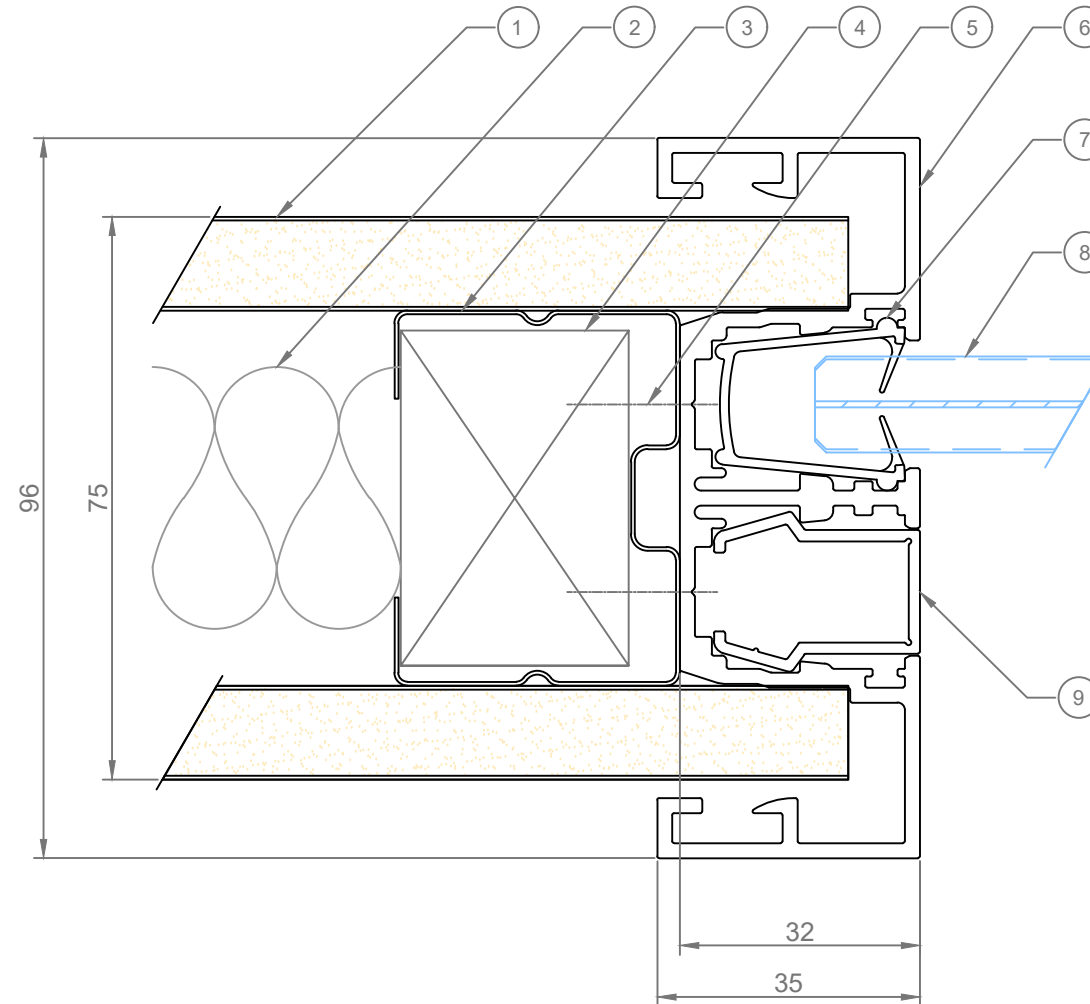
09/06/21

SCALE:

1:1

ISSUE NO:

2



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54WA100
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

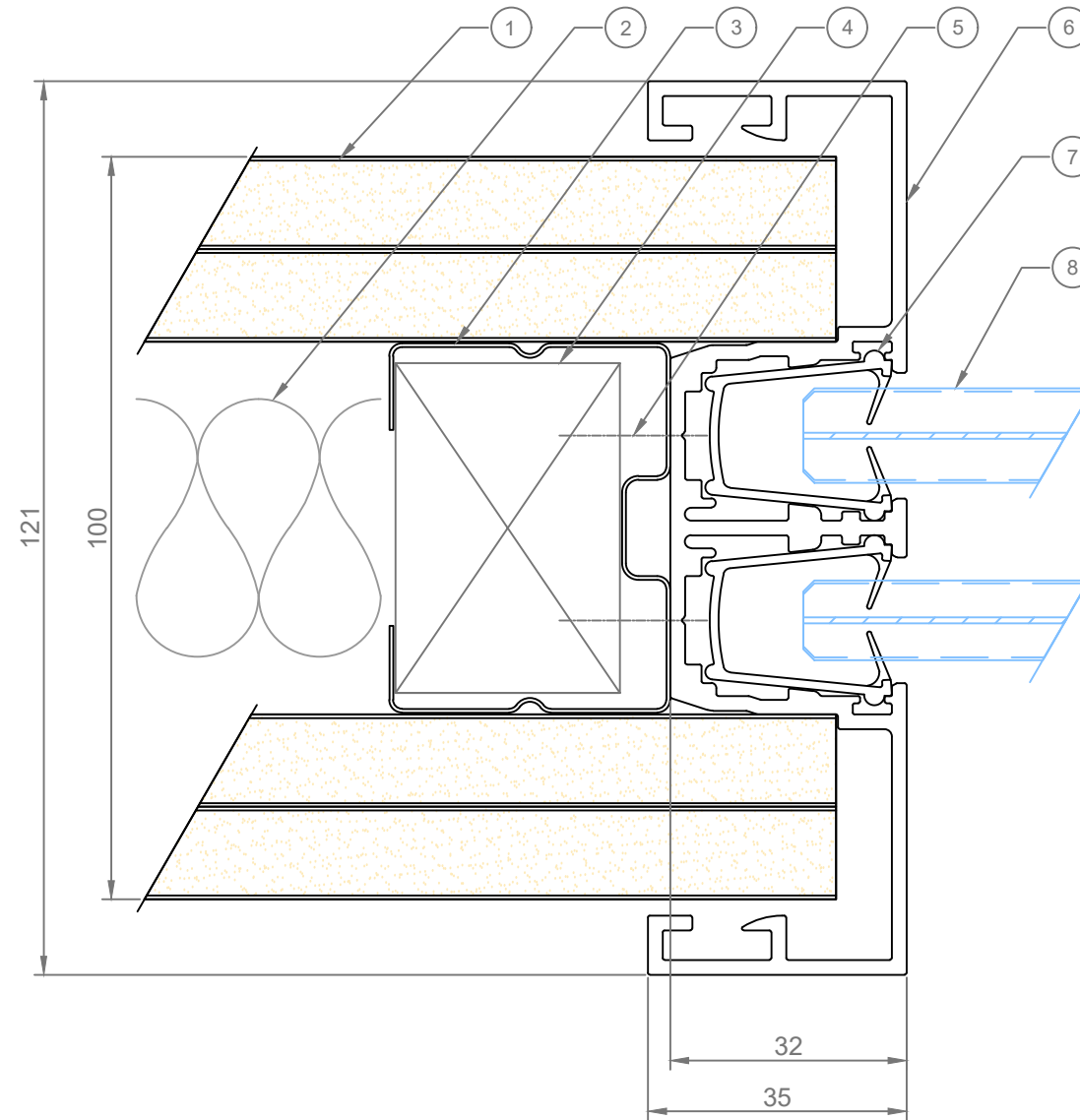
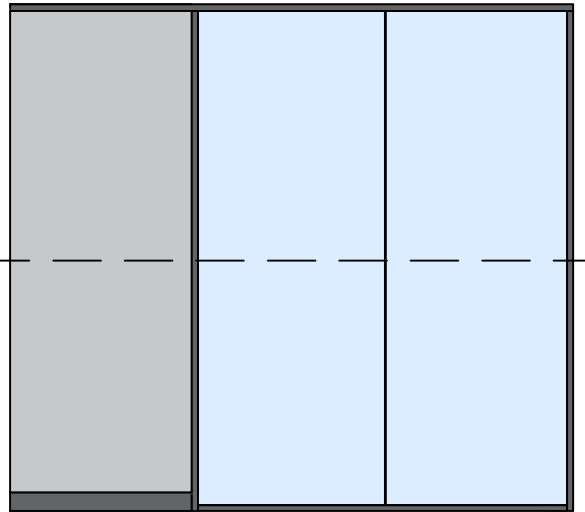
-  Double Glazed
-  Horizontal Screen  
100mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-HS-09

DATE:  
09/06/21

SCALE:  
1:1

ISSUE NO:  
2



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54WA100
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS
9	K54GI

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Offset Single Glazed
-  Horizontal Screen  
100mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-HS-10

DATE:

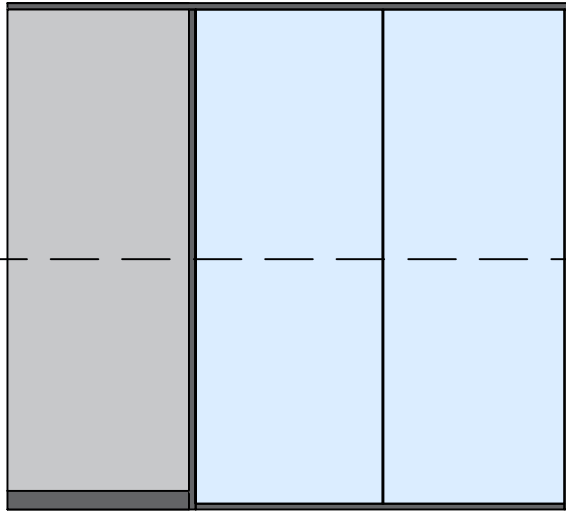
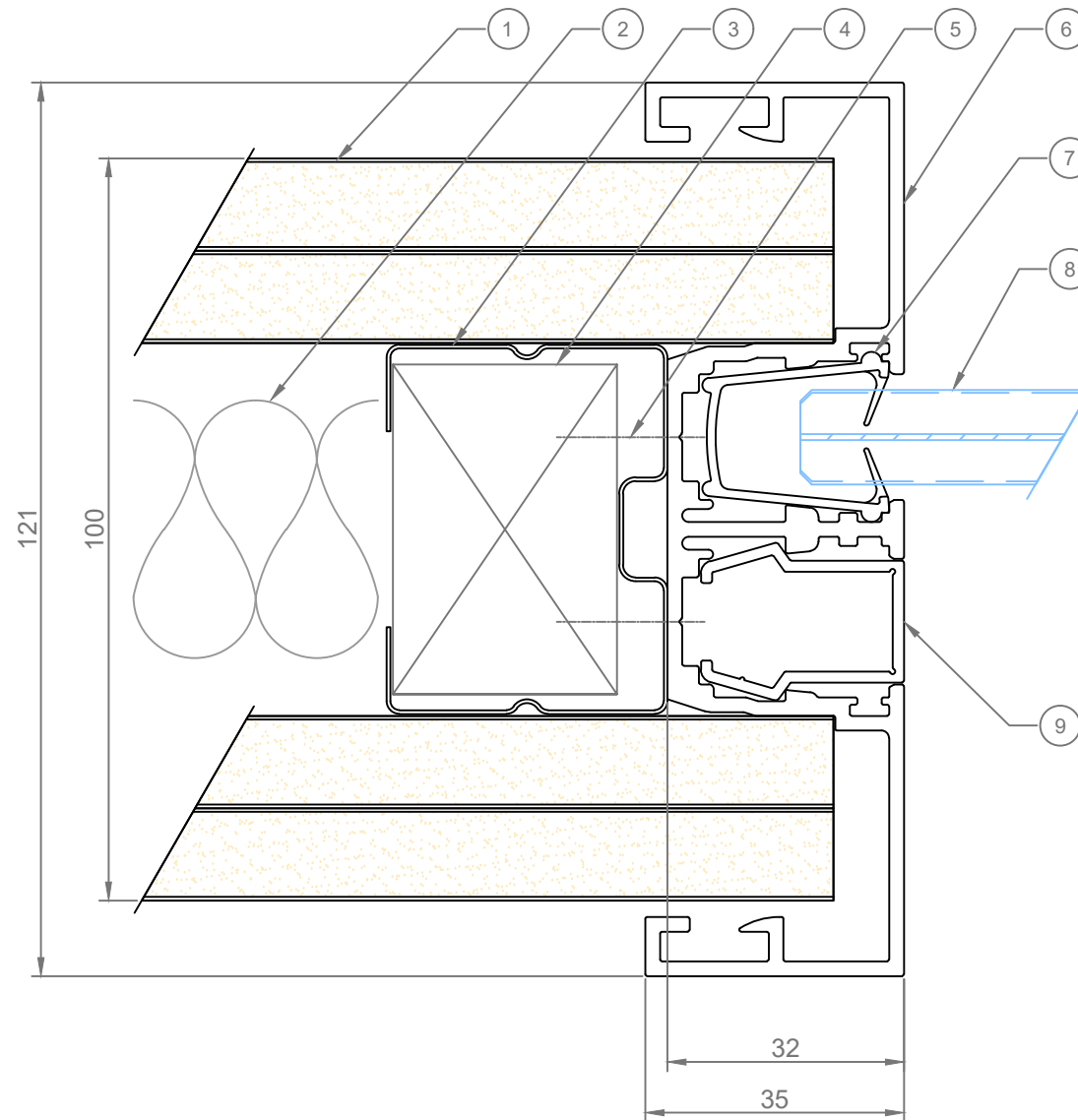
09/06/21

SCALE:

1:1

ISSUE NO:

2



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

### COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54TJ100
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS

### NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

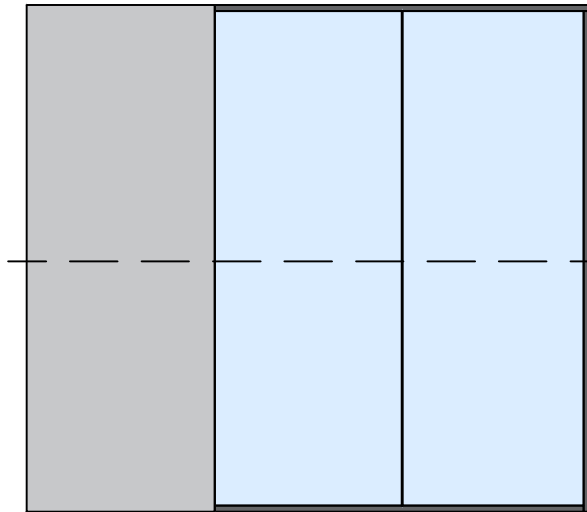
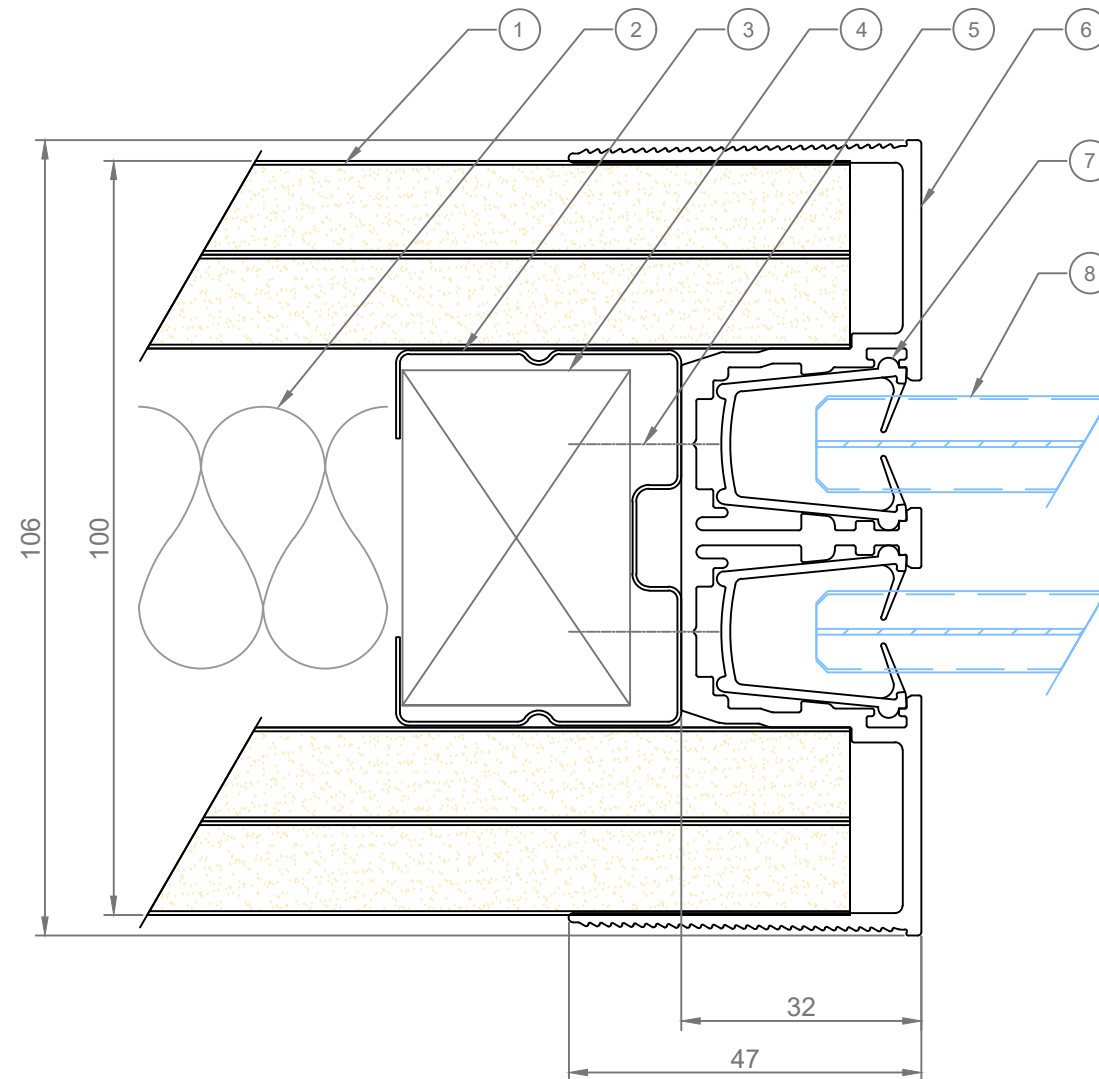
-  Double Glazed
-  Horizontal Screen  
100mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-HS-03

DATE:  
05/05/21

SCALE:  
1:1

ISSUE NO:  
3



Glazed Module Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

COMPONENT KEY:

1	12.5mm PLASTERBOARD
2	881S50
3	853
4	331
5	SUITABLE STRUCTURAL FIXING
6	K54TJ100
7	SJ20
8	10-14.8mm (CFT or Lam.) GLASS
9	K54GI

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Offset Single Glazed
-  Horizontal Screen  
100mm Drywall Adaptor
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:

K54-HS-04

DATE:

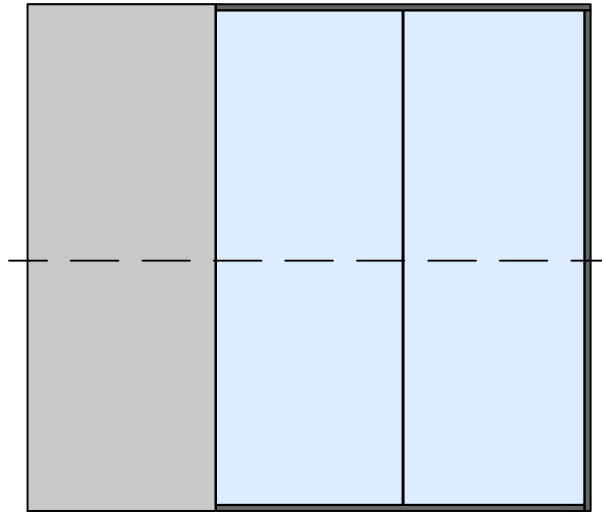
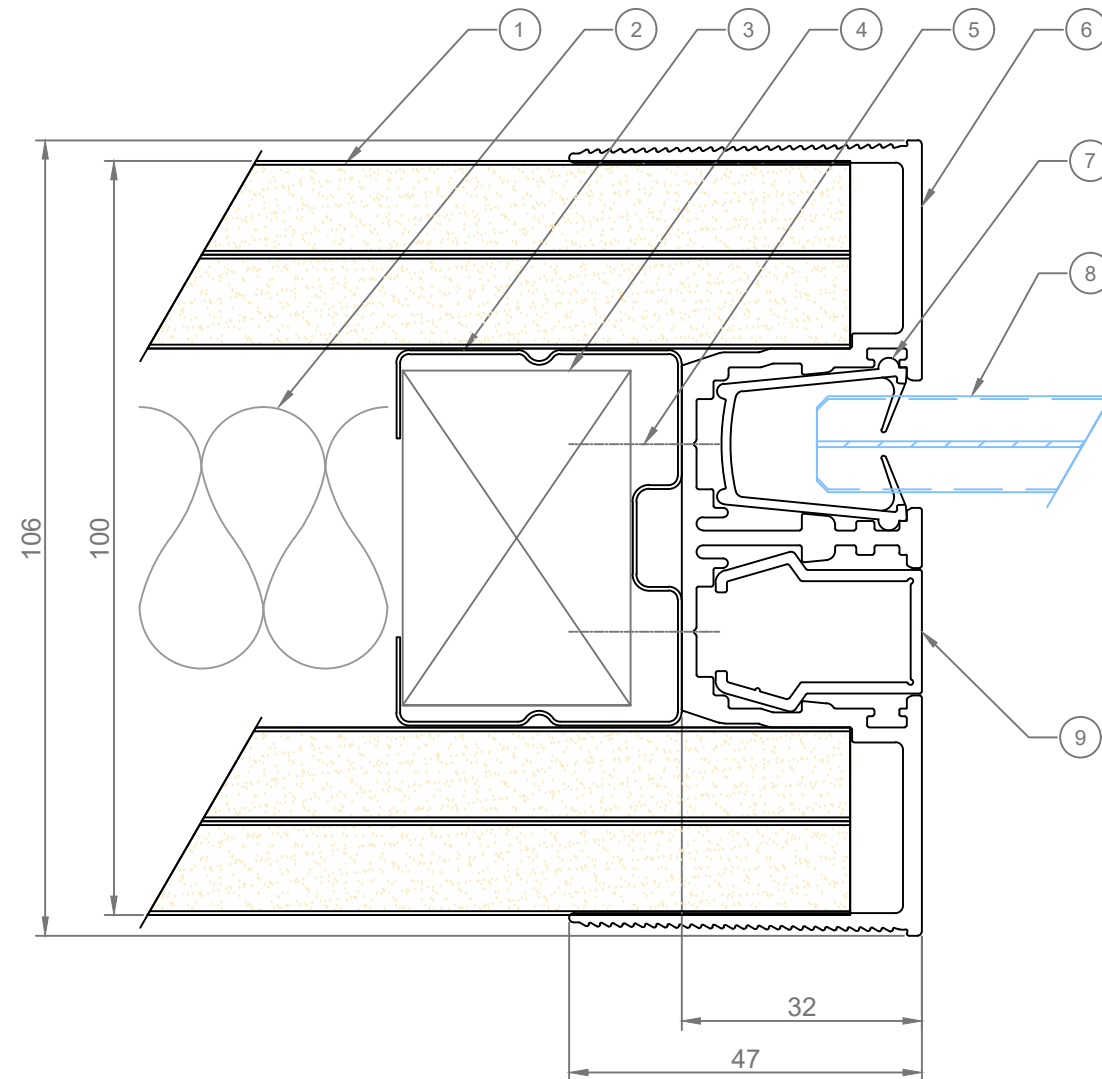
05/05/21

SCALE:

1:1

ISSUE NO:

3



Glazed Module Parameters

Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

## Polar 54

COMPONENT KEY:

1	342
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ69
5	SJ20
6	K54DF
7	K54DS

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

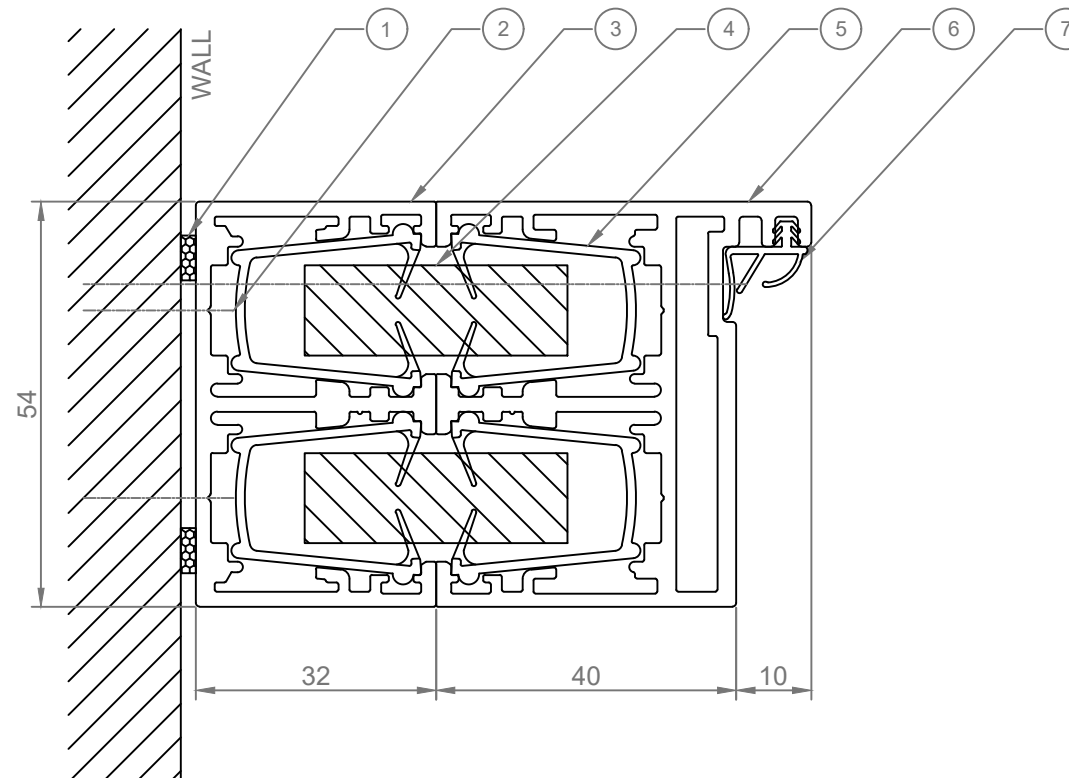
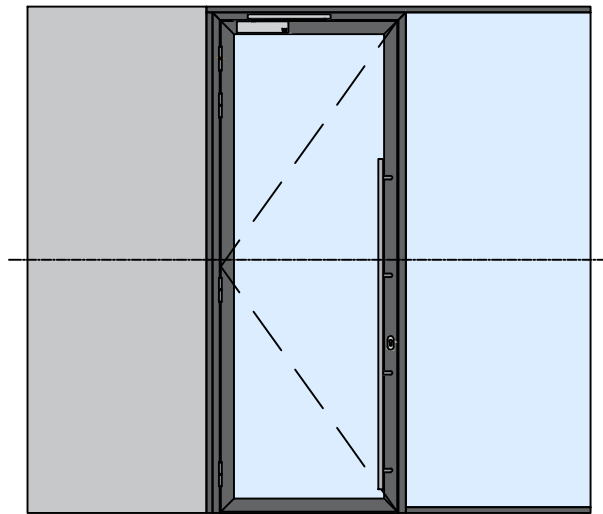
-  Single Offset Glazed  
Double Glazed
-  Horizontal Screen  
Door Frame to Wall
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-HS-13

DATE:  
09/06/21

SCALE:  
1:1

ISSUE NO:  
2





## Polar 54

COMPONENT KEY:

1	SUITABLE STRUCTURAL FIXING
2	K54DF
3	K54DS
4	342 FOAM

NOTES:

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:



Single Offset Glazed  
Double Glazed



Horizontal Screen  
Door Frame to Wall



0 min Integrity  
0 min Insulation



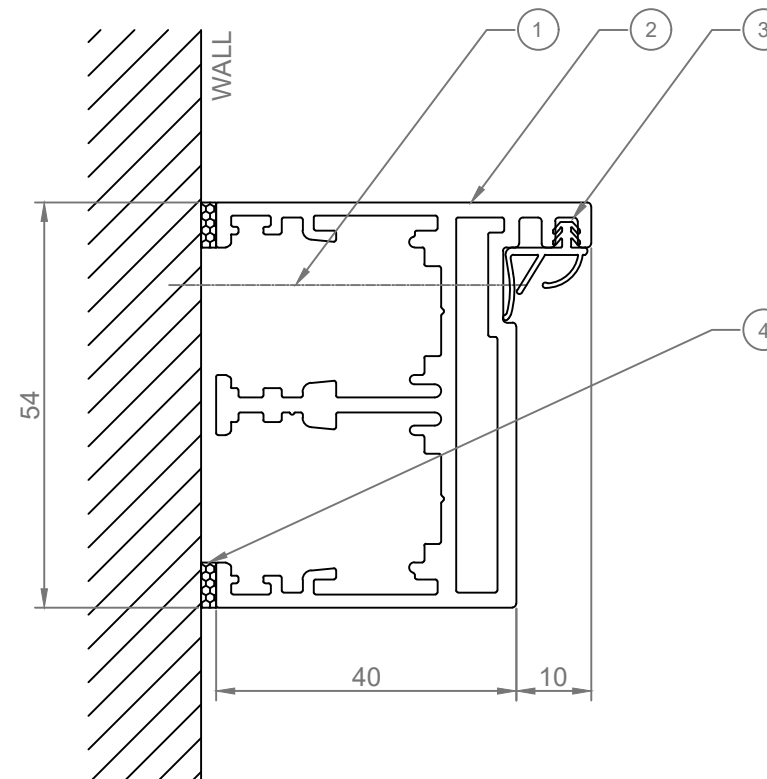
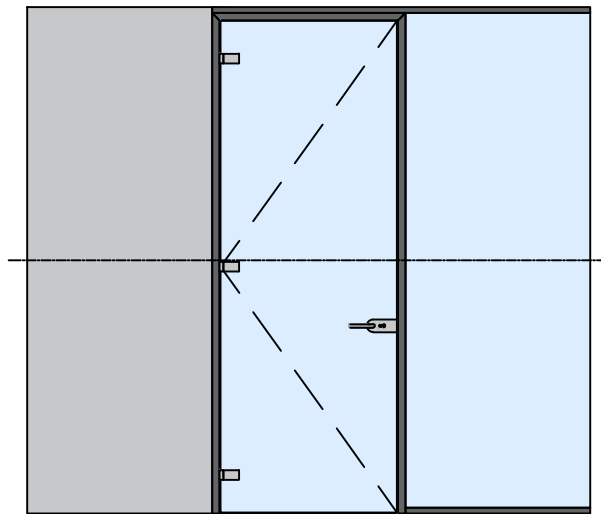
+/- 0 mm  
Deflection

DRAWING NO:  
K54-HS-14

DATE:  
10/06/21

SCALE:  
1:1

ISSUE NO:  
2



## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	SJ34
3	POLAR.TECH
4	K54KGF
5	SJ20
6	K54DF
7	K54DS
8	TAPE19.1C
9	K54KGB

NOTES:

TECH PANELS ARE MADE TO ORDER ITEMS

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed
-  Horizontal Tech Panel Steel Clad Panel
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm Deflection

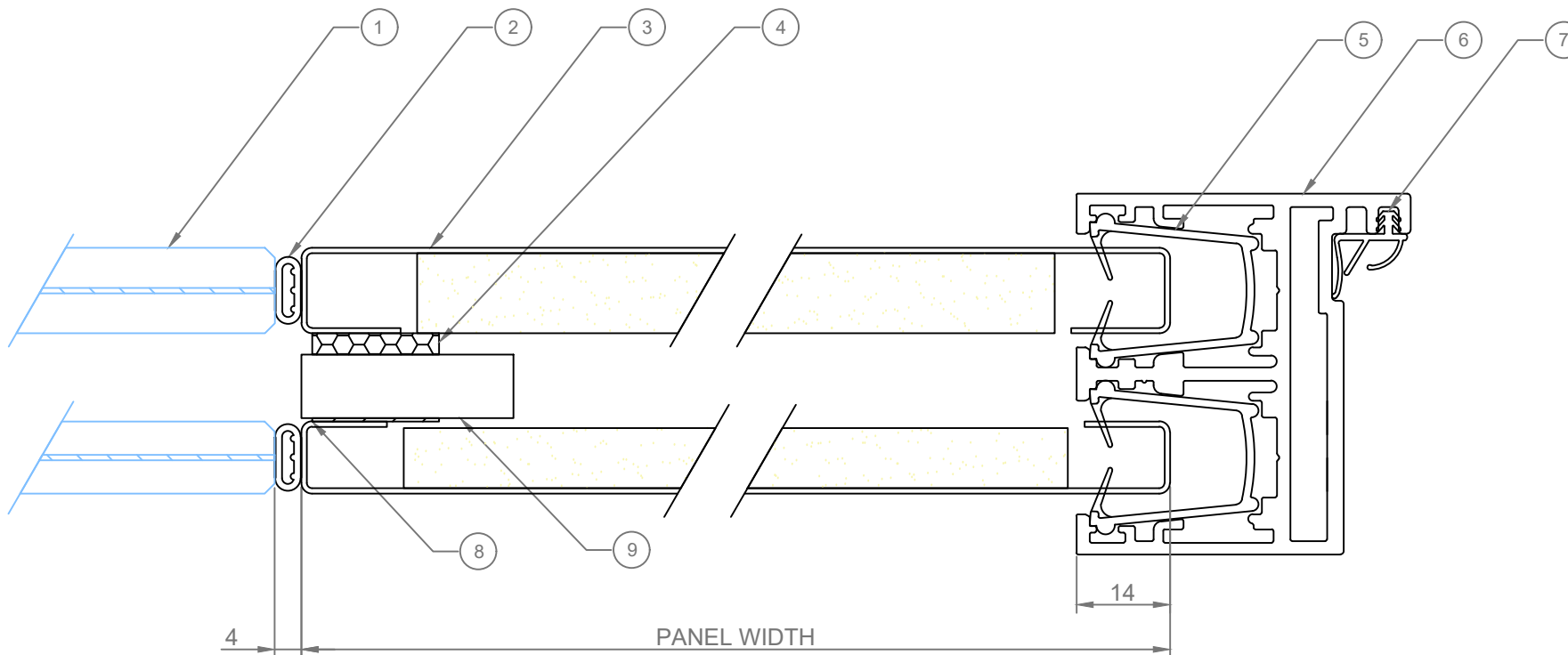
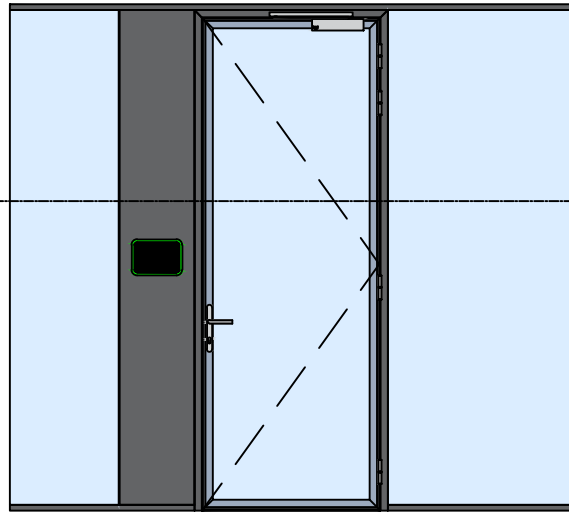
DRAWING NO:  
K54-HS-18

DATE:  
14/07/21

SCALE:  
1:1

ISSUE NO:  
1

Tech Panel Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		

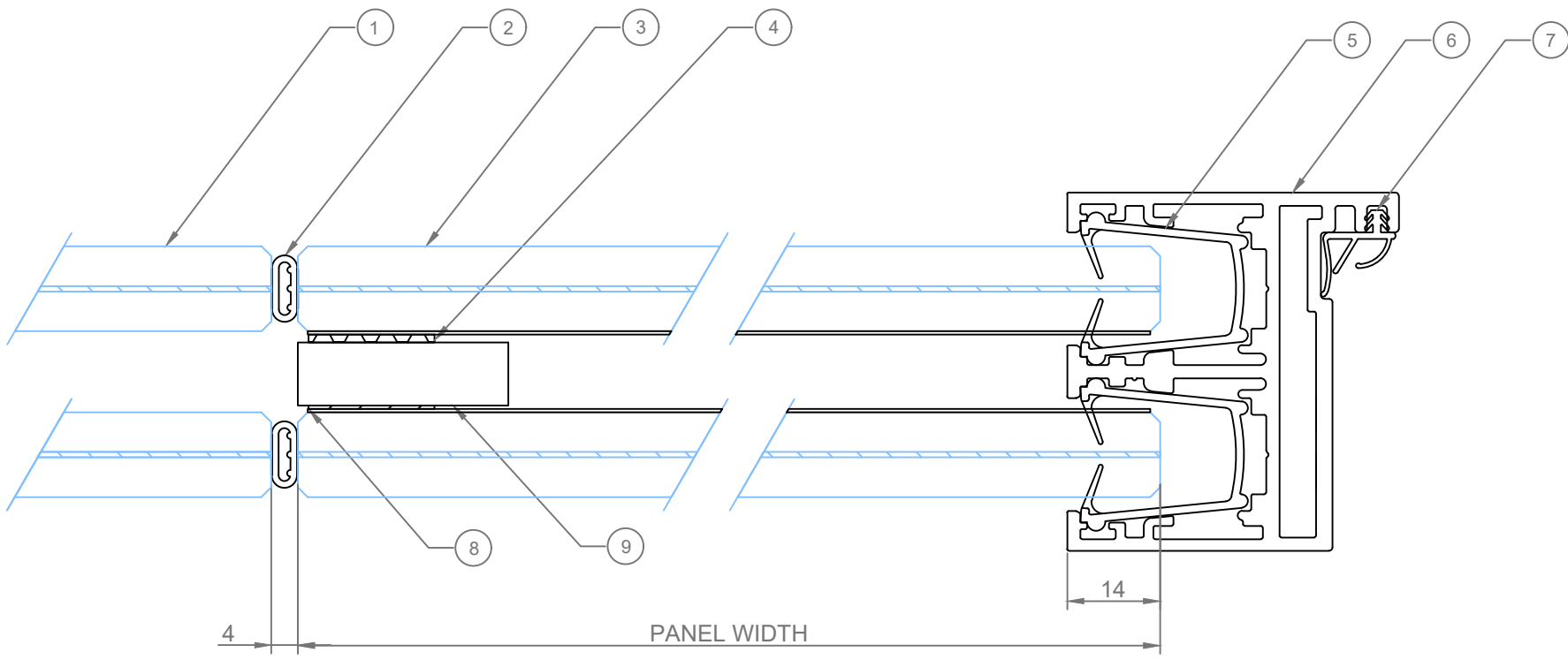
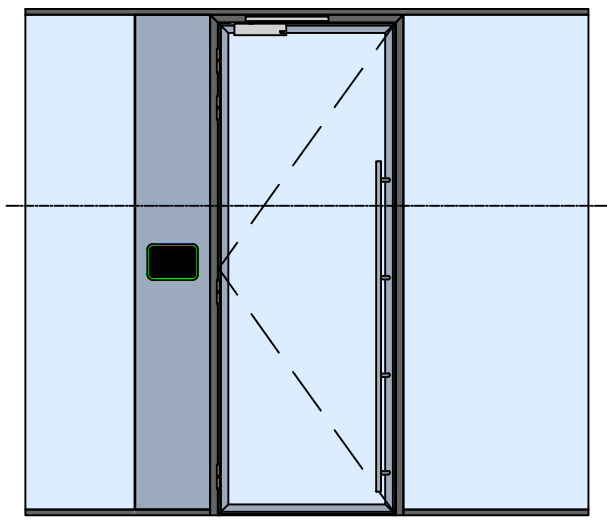


## Polar 54





COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	SJ34
3	BACK PAINTED GLASS
4	K54KGF
5	SJ20
6	K54DF
7	K54DS
8	TAPE19,1C
9	K54KGB

Tech Panel Parameters		
Unit	Max. Height	Max. Width
Module Size	3000mm*	1200mm
Glass Size	2970mm*	1196mm
* Dependent on Glass Configuration		



NOTES:  
ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
-  Double Glazed
  -  Horizontal Tech Panel Back Painted Glass
  -  0 min Integrity  
0 min Insulation
  -  +/- 0 mm Deflection

DRAWING NO: K54-HS-19      DATE: 14/07/21





SCALE: 1:1      ISSUE NO: 1

## Polar 54

COMPONENT KEY:

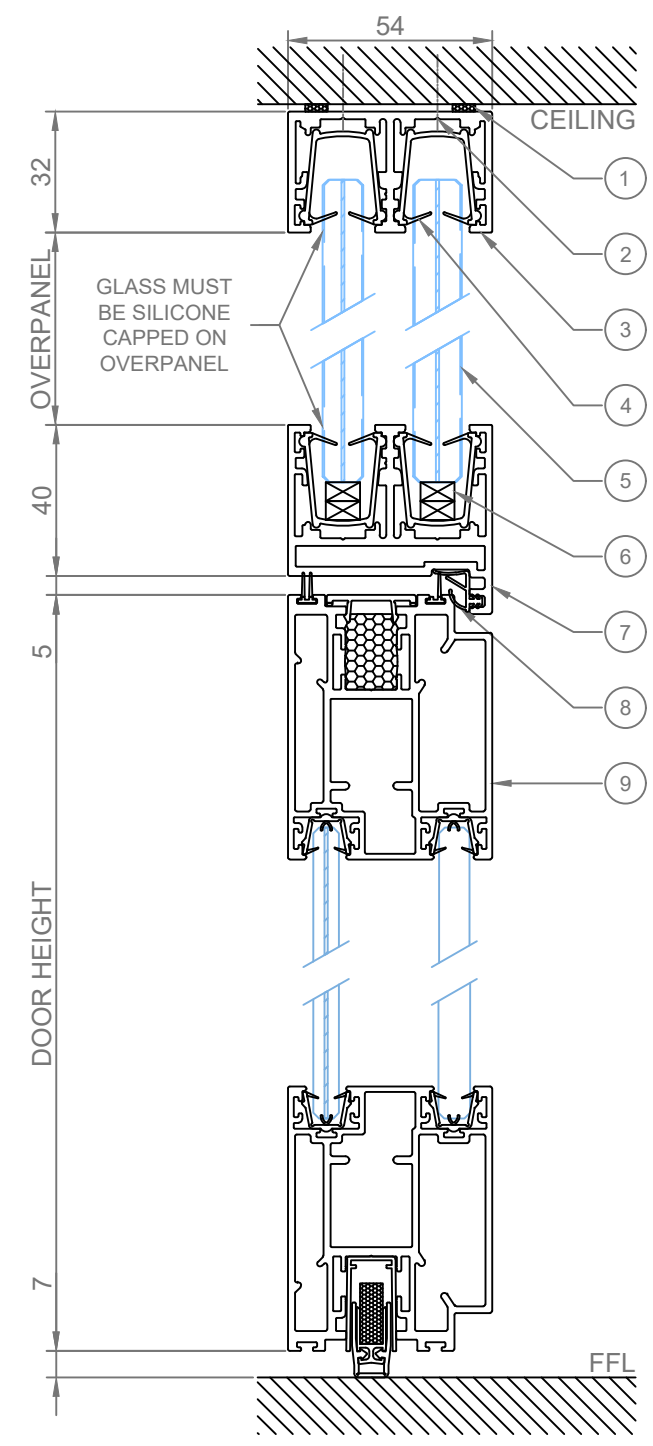
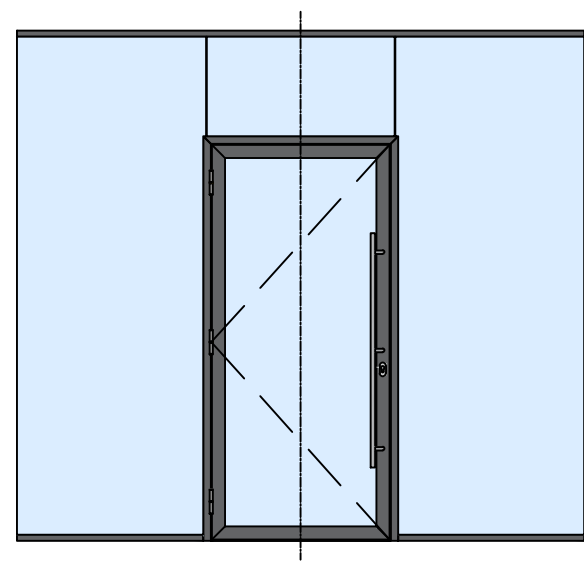
1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	PSUN PACKERS
7	K54DF
8	K54DS
9	SONIK 52, 70 OR 70R DOOR

NOTES:  
 OTHER IRONMONGERY OPTIONS ARE AVAILABLE  
 REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION  
 ALL DIMENSIONS ARE NOMINAL & IN mm

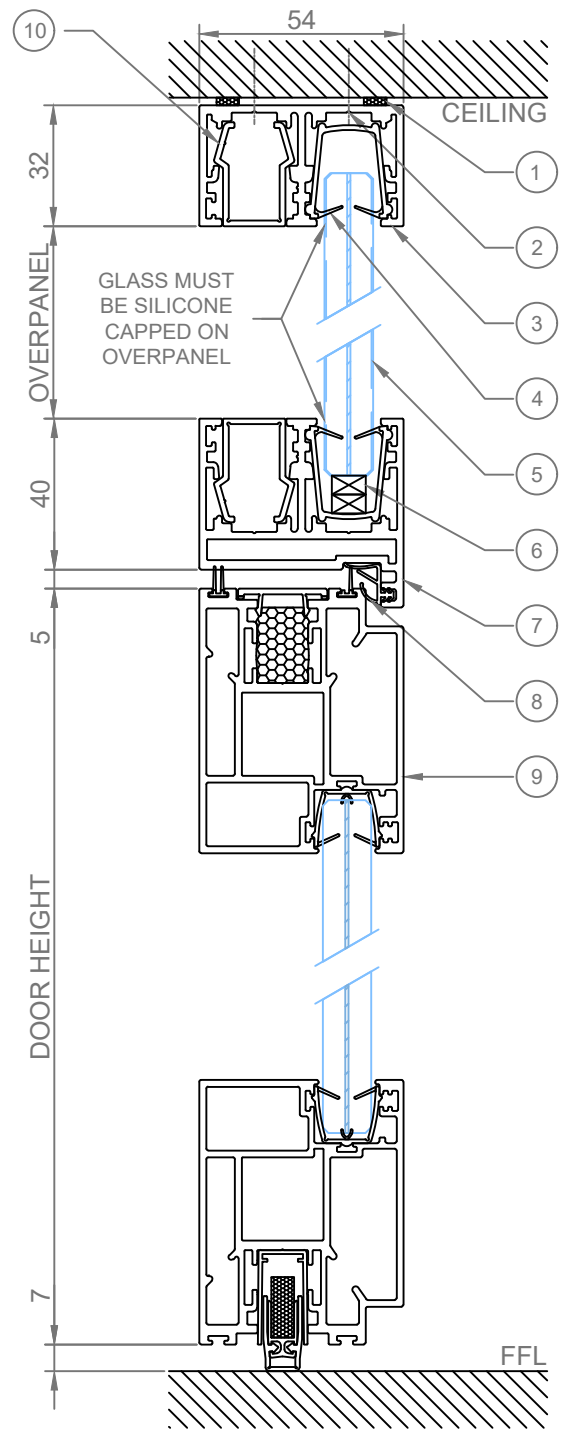
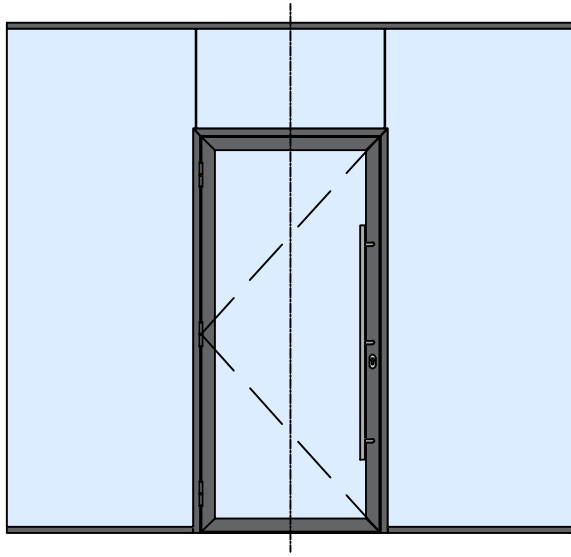
- JUNCTION CATEGORY:
-  Double Glazed
  -  Vertical Door Sonik with Overpanel
  -  0 min Integrity  
0 min Insulation
  -  0 mm Deflection

DRAWING NO: K54-VD-01      DATE: 10/03/22

SCALE: 1:2      ISSUE NO: 5



Sonik Door with Glazed Overpanel Parameters		
* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.		
	Minimum	Maximum
Overpanel Height	200mm	Up to 583mm*
Door Height	1981mm	Up to 2716mm*
Overall Height	2265mm	Up to 3000mm^
^ Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		



Sonik Door with Glazed Overpanel Parameters		
* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.		
	Minimum	Maximum
Overpanel Height	200mm	Up to 583mm*
Door Height	1981mm	Up to 2716mm*
Overall Height	2265mm	Up to 3000mm^
^ Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	K54GI
5	SJ20
6	10-14.8mm (CFT or Lam.) GLASS
7	PSUN PACKERS
8	K54DF
9	K54DS
10	SONIK 52, 70 OR 70R DOOR

NOTES:  
 OTHER IRONMONGERY OPTIONS ARE AVAILABLE  
 REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION  
 ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Offset Single Glazed
-  Vertical Sonik Door
-  0 min Integrity  
0 min Insulation
-  0 mm Deflection

DRAWING NO: K54-VD-04      DATE: 10/03/22

SCALE: 1:2      ISSUE NO: 5

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	SONIK 52, 70 OR 70R DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

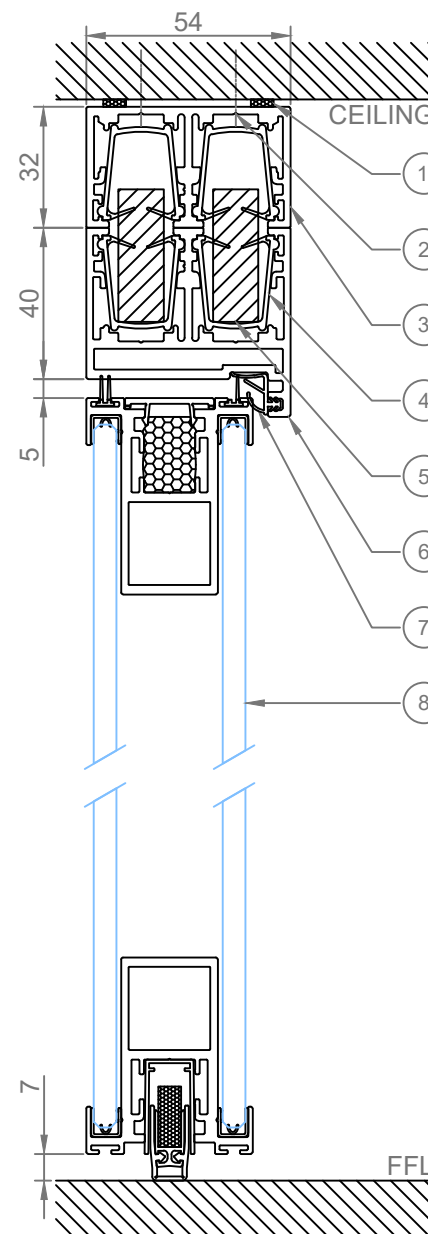
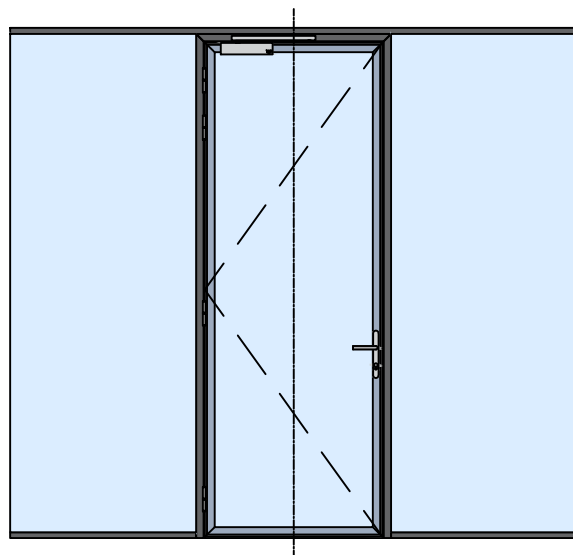
-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Sonik
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-VD-07

DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
5



Full Height Sonik Door Parameters

	Minimum	Maximum
Door Height	1981mm	2916mm
Overall Height	2065mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DF
4	SJ20
5	K54DS
6	SONIK 52, 70 OR 70R DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

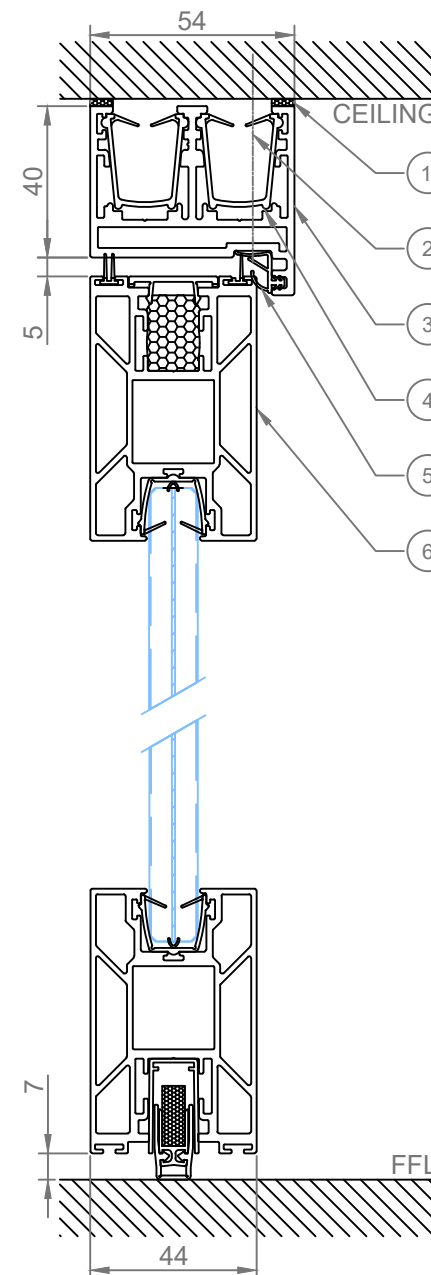
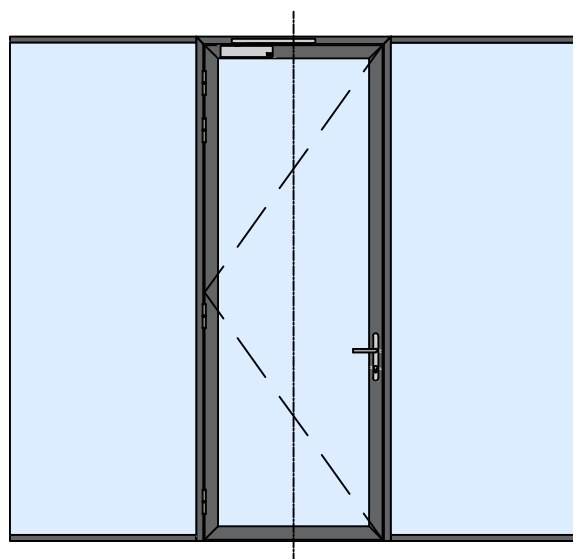
-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Sonik
-  0 min Integrity  
0 min Insulation
-  0 mm  
Deflection

DRAWING NO:  
K54-VD-11

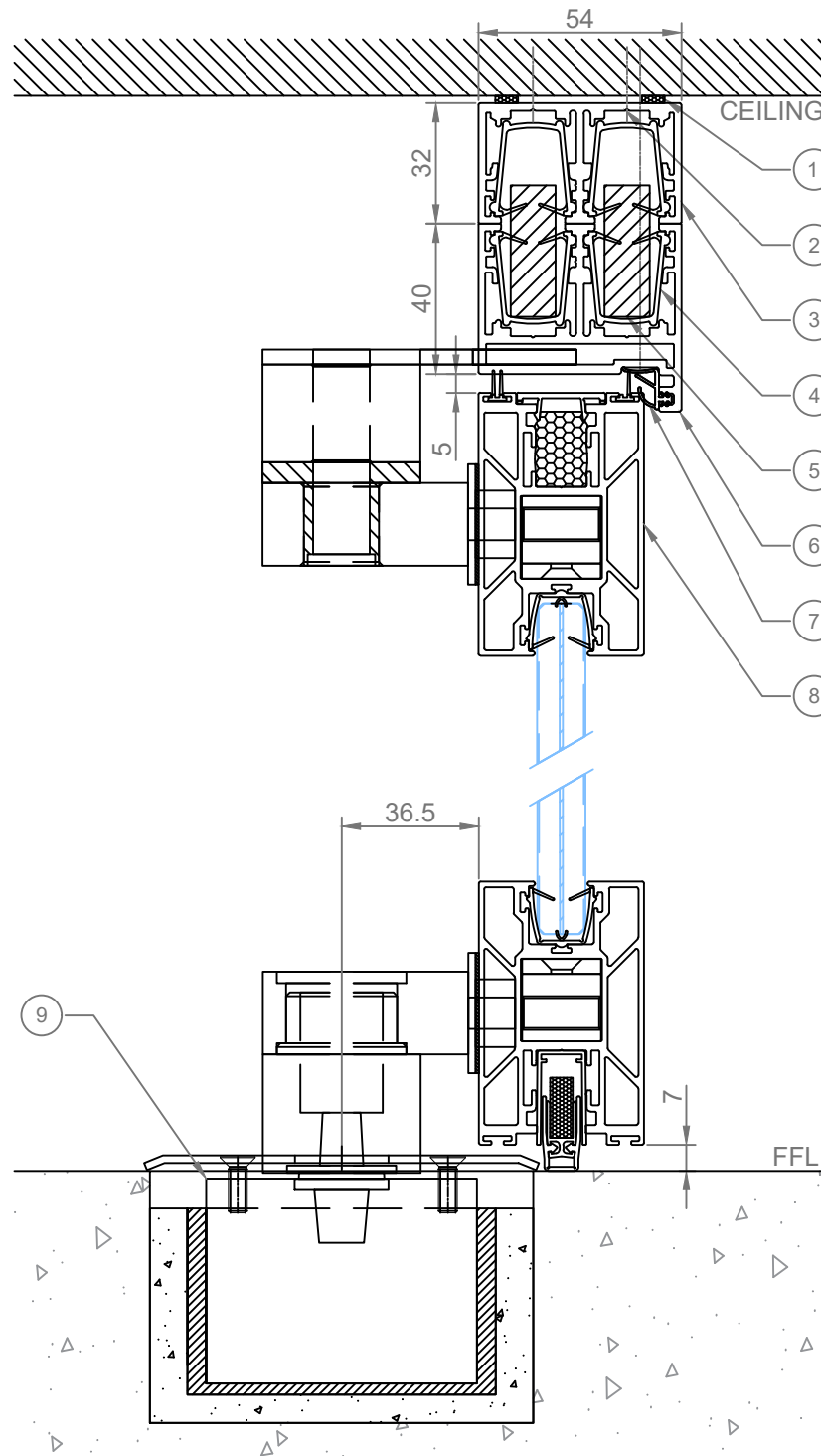
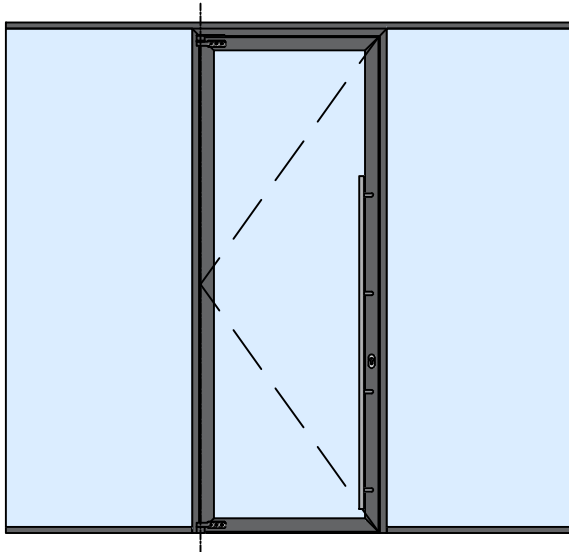
DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
2



Full Height Sonik Door Parameters		
	Minimum	Maximum
Door Height	1981mm	2948mm
Overall Height	2033mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		



Full Height Sonik Door Parameters		
	Minimum	Maximum
Door Height	1981mm	2916mm
Overall Height	2065mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	SONIK 70 OR 70R DOOR
9	G930 BTS75V FLOOR SPRING

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

- Double Glazed  
Offset Single Glazed
- Vertical Door  
Sonik with Floor Spring
- 0 min Integrity  
0 min Insulation
- 0 mm  
Deflection

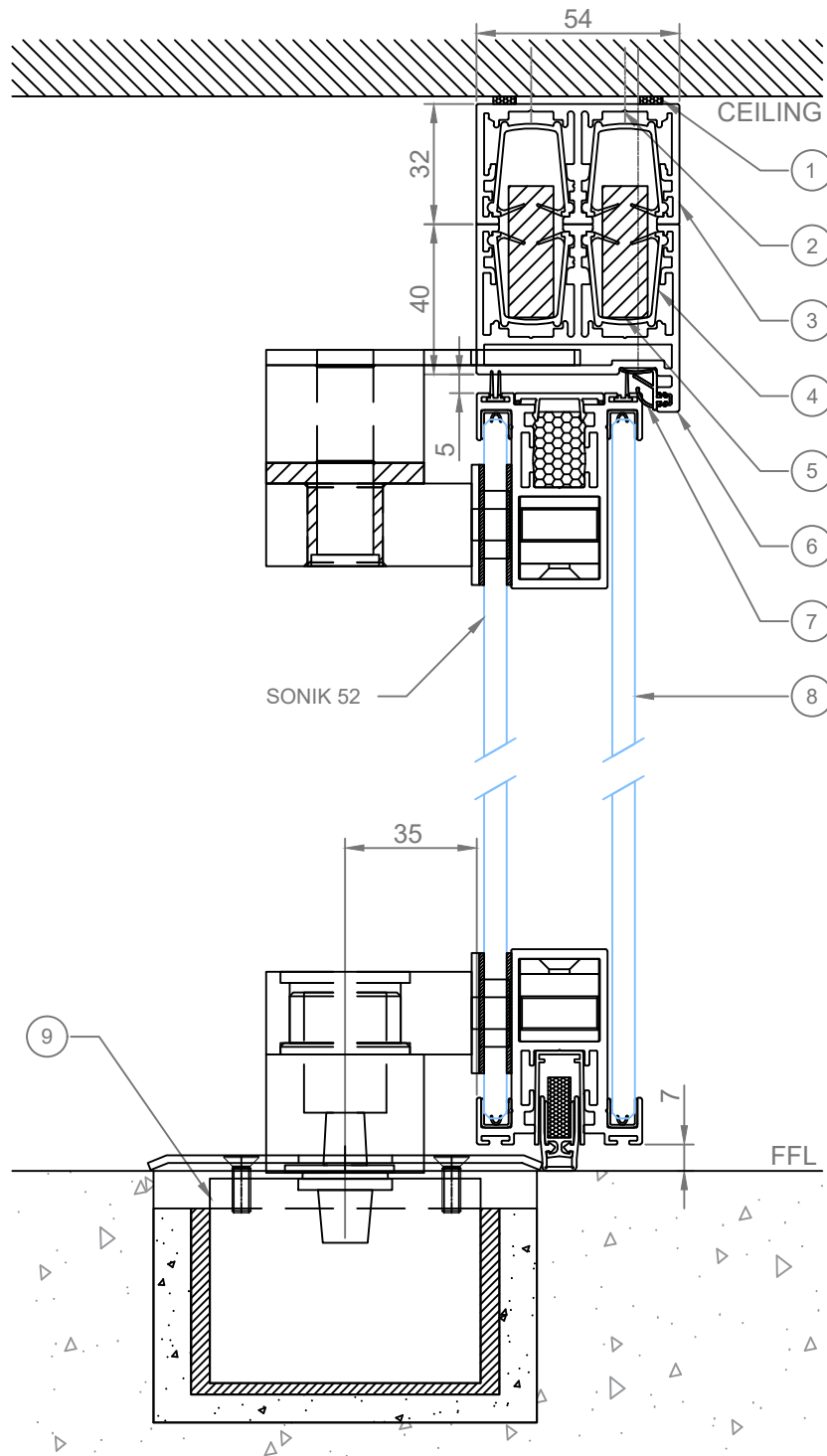
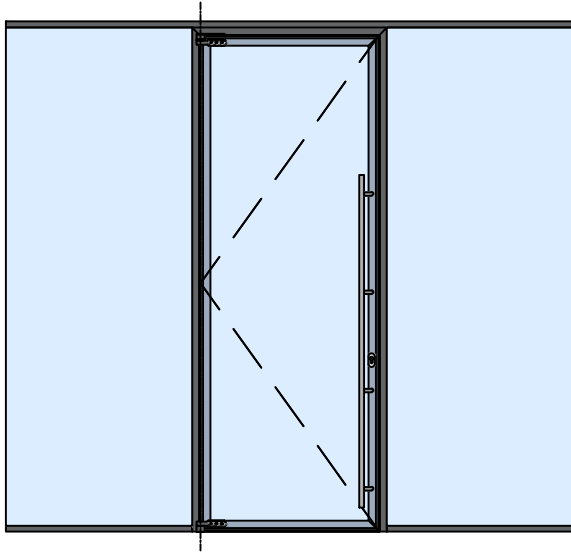
DRAWING NO:  
K54-VD-14

DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
2





Full Height Sonik Door Parameters		
	Minimum	Maximum
Door Height	1981mm	2916mm
Overall Height	2065mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 120kg		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	SONIK 52 DOOR
9	G930 BTS75V FLOOR SPRING

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

- Double Glazed  
Offset Single Glazed
- Vertical Door  
Sonik with Floor Spring
- 0 min Integrity  
0 min Insulation
- 0 mm  
Deflection

DRAWING NO:  
K54-VD-15

DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
2

## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	K54GI
4	K54DS
5	SONIK 52, 70 OR 70R DOOR
6	SJ20

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Sonik Single Doorset
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

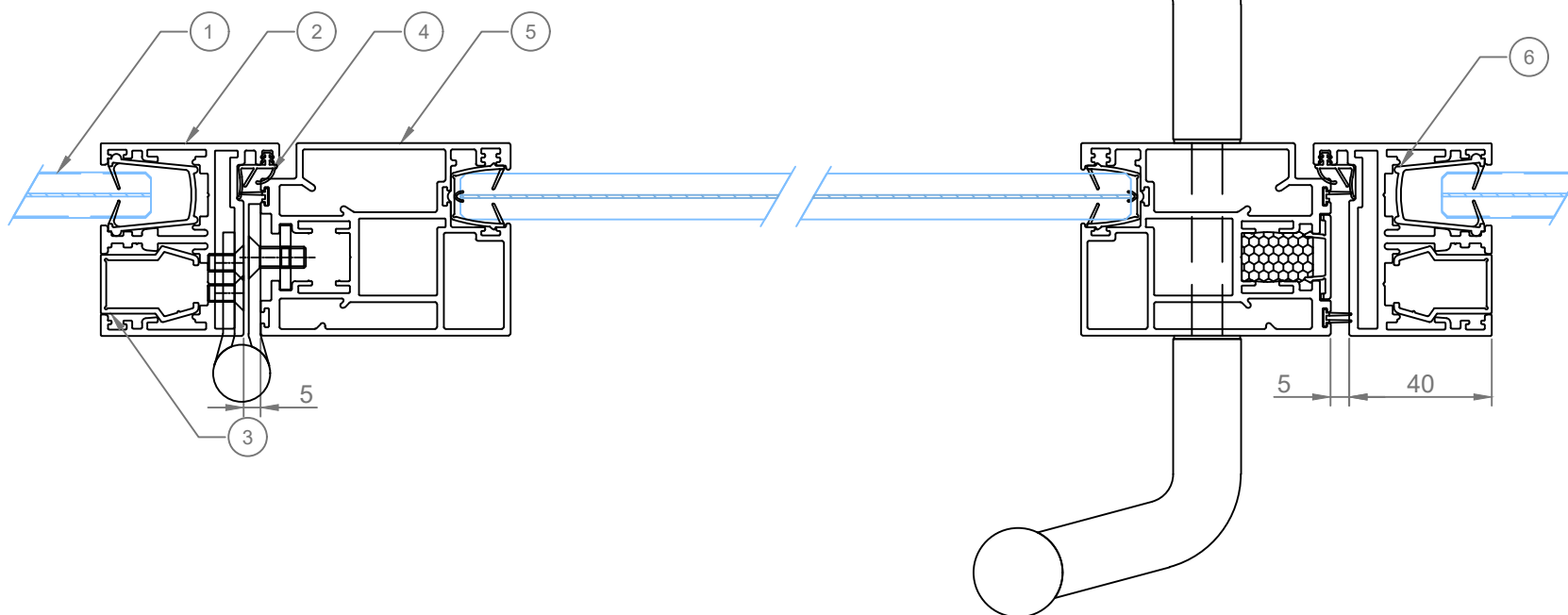
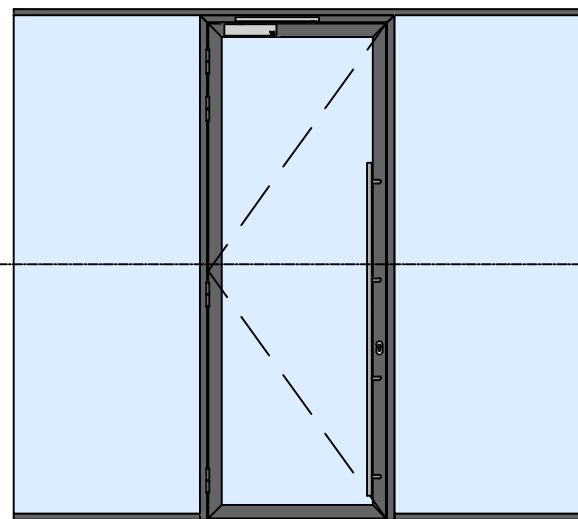
DRAWING NO:  
K54-HD-01

DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
4

Sonik Door Parameters	
Door Height	Door Width
2400mm or Less	1100mm or Less
2401mm to 2700mm	1000mm or Less
2701mm to 2948mm	900mm or Less
Maximum Door Weight = 120kg	
Track to Track Opening = Door Width + 90mm	

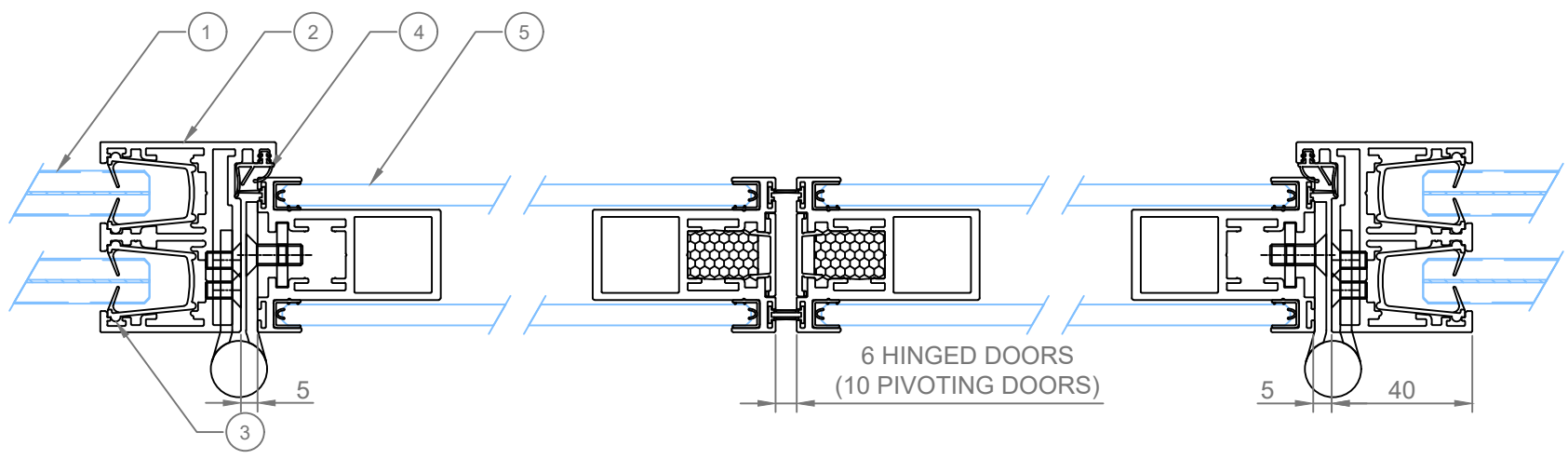
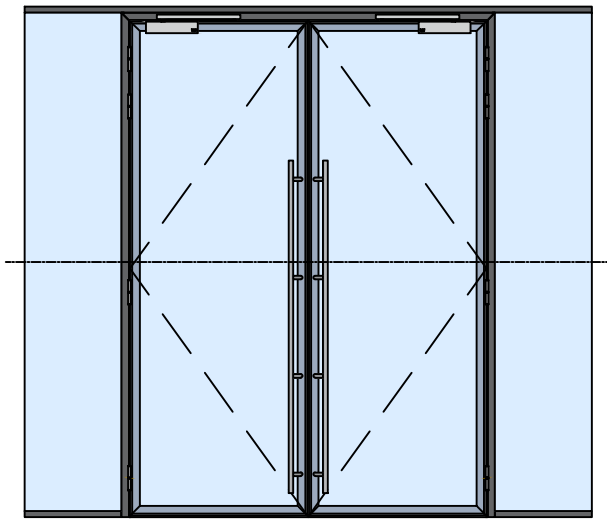


## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	SJ20
4	K54DS
5	SONIK 52, 70 OR 70R DOOR

Sonik Door Parameters	
Door Height	Door Width
2400mm or Less	1100mm or Less
2401mm to 2700mm	1000mm or Less
2701mm to 2948mm	900mm or Less
Maximum Door Weight = 120kg	
Track to Track Opening	
Lift Off Hinges	Offset Pivots
Door Widths + 96mm	Door Widths + 100mm



NOTES:

SONIK DOORS MUST BE FULL HEIGHT IN DOUBLE DOORSETS

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Sonik Double Doorset
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-HD-04      DATE: 10/03/22

SCALE: 1:2      ISSUE NO: 4

## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54FT
3	SJ20
4	K54DF
5	SONIK 70 OR 70R DOOR

NOTES:

MAXIMUM DOOR WEIGHT = 120KG

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Sonik with Floor Spring
-  0 min Integrity  
0 min Insulation
-  +/-  
Deflection

DRAWING NO:  
K54-HD-07

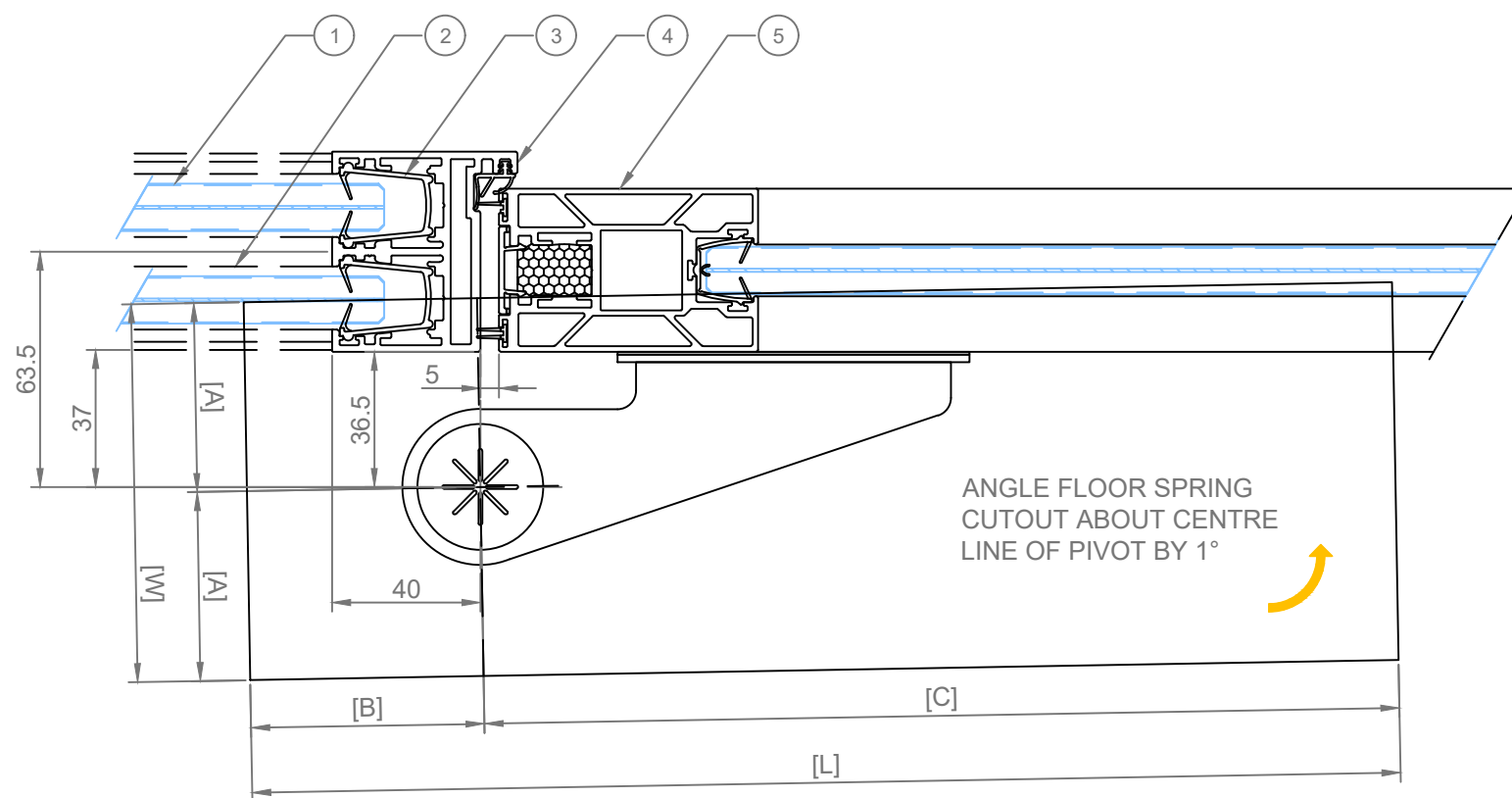
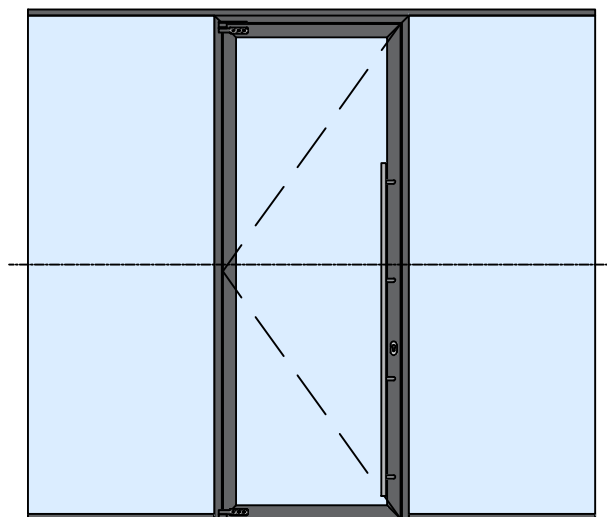
DATE:  
10/03/22

SCALE:  
1:2

ISSUE NO:  
2

Setting Out Details for Sonik Doors on Offset Pivots with Floor Springs

Floor Spring	Floor Type Scenario	[W]	[L]	[A]	[B]	[C]
BTS75V	Raised Access Floor or Timber/Auxiliary Covering With Coffe Box	92mm	296mm	46mm	56mm	240mm
	Concrete or Solid Substrate Floor Spring Body Only	102mm	310mm	51mm	63mm	247mm



## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54FT
3	SJ20
4	K54DF
5	SONIK 52 DOOR

NOTES:

MAXIMUM DOOR WEIGHT = 120KG

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

REFER TO SONIK DOOR DESIGN GUIDE FOR MORE INFORMATION

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Sonik with Floor Spring
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-HD-08

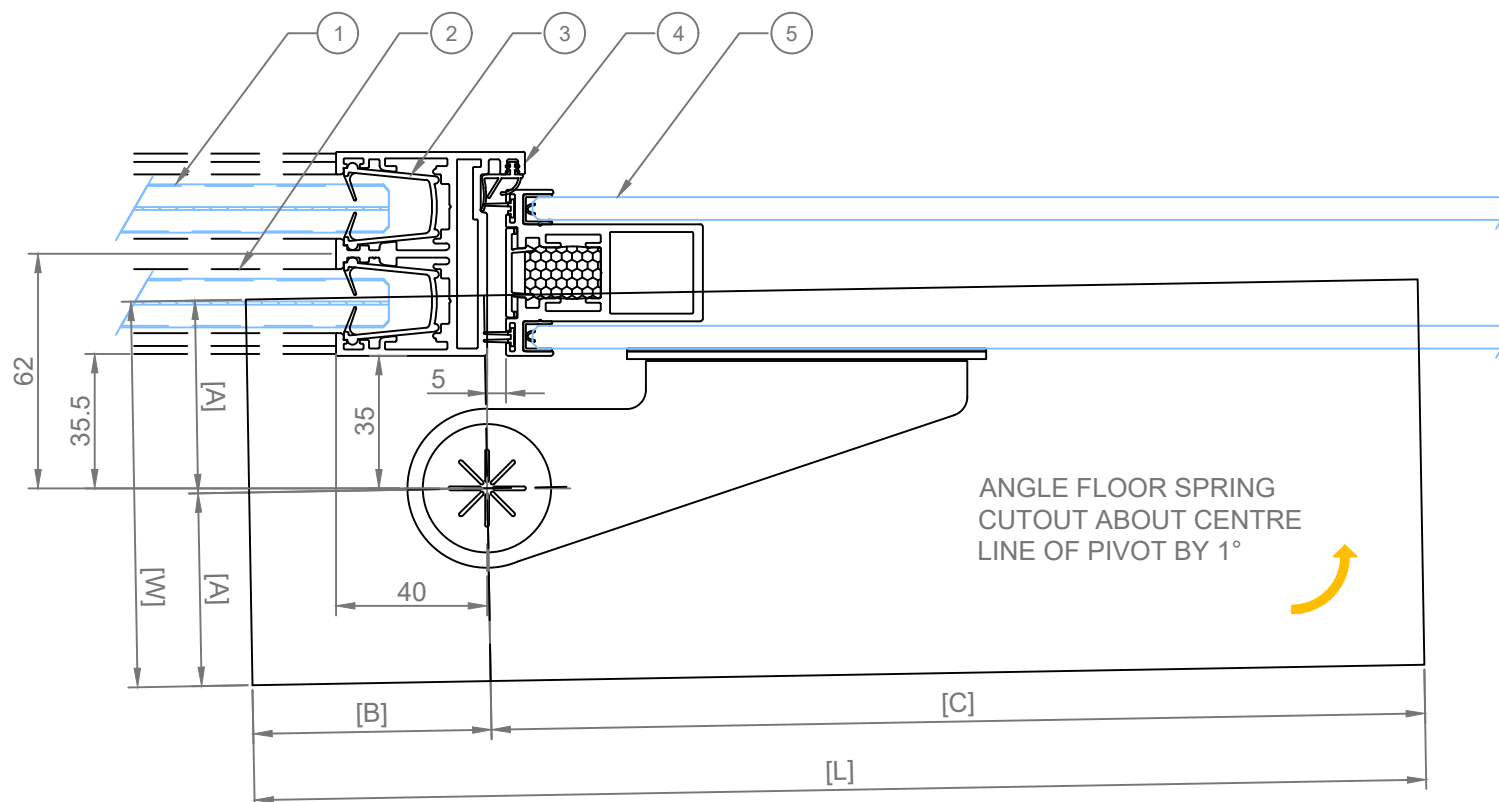
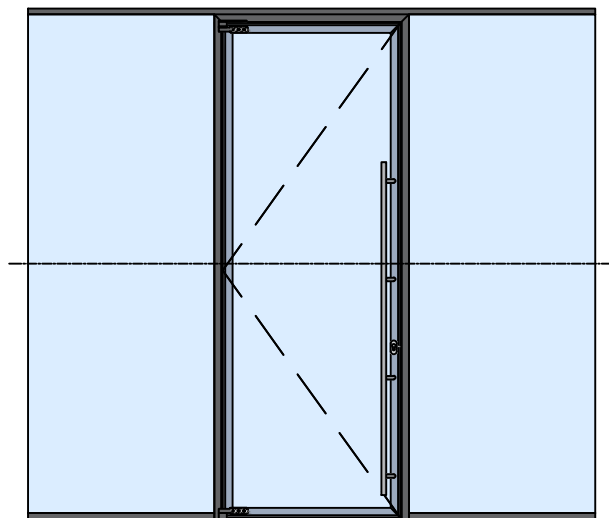
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10/03/22

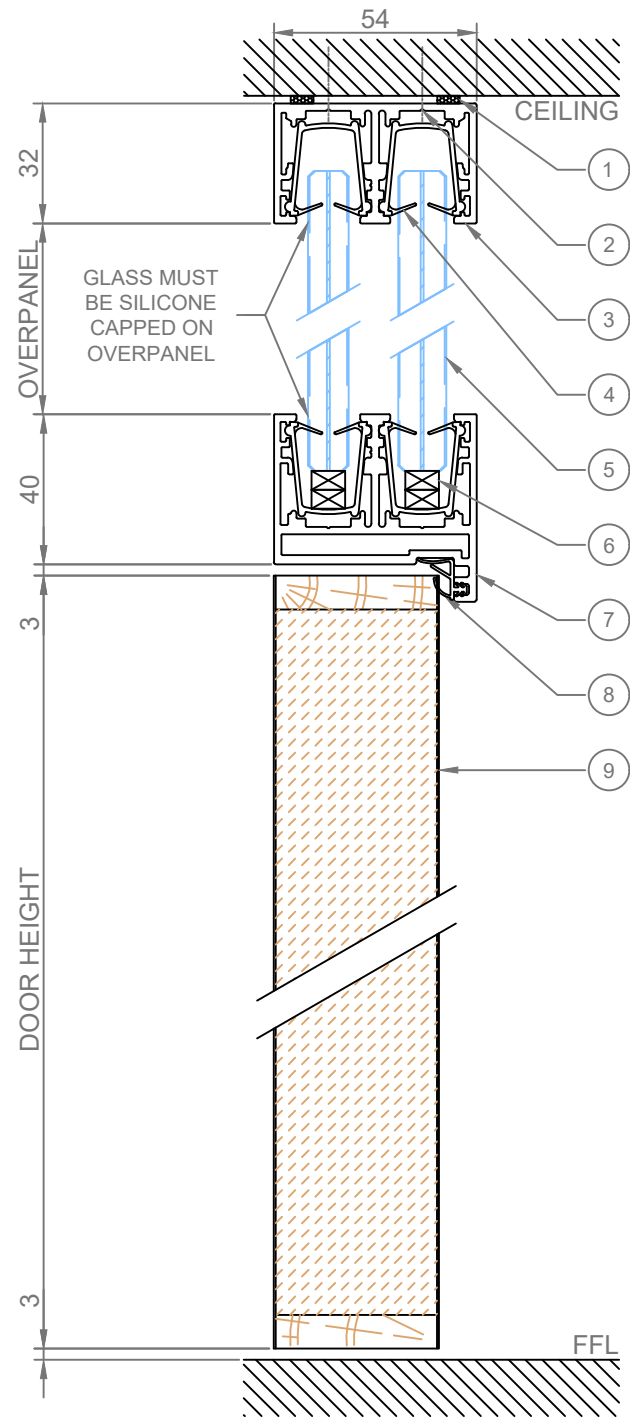
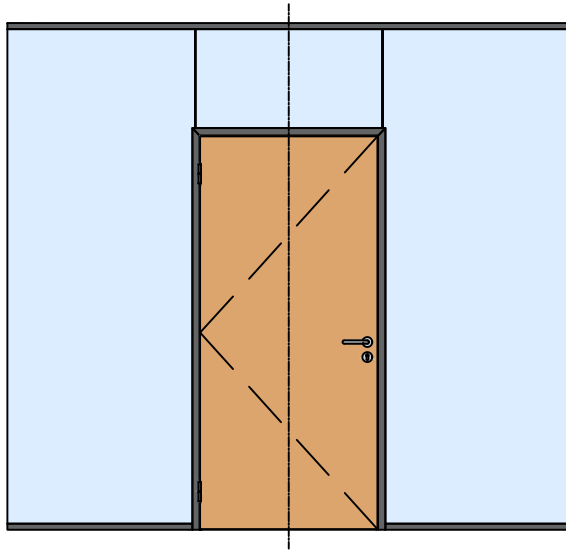
SCALE:  
1:2

ISSUE NO:  
2

Setting Out Details for Sonik Doors on Offset Pivots with Floor Springs

Floor Spring	Floor Type Scenario	[W]	[L]	[A]	[B]	[C]
BTS75V	Raised Access Floor or Timber/Auxiliary Covering With Coffe Box	92mm	296mm	46mm	56mm	240mm
	Concrete or Solid Substrate Floor Spring Body Only	102mm	310mm	51mm	63mm	247mm





Timber Door with Glazed Overpanel Parameters		
* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.		
	Minimum	Maximum
Overpanel Height	200mm	Up to 584mm*
Door Height	1981mm	Up to 2722mm*
Overall Height	2259mm	Up to 3000mm^
^ Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	PSUN PACKERS
7	K54DF
8	K54DS
9	44mm or 54mm TIMBER DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Double Glazed
-  Vertical Door  
Timber with Overpanel
-  0 min Integrity  
0 min Insulation
-  0 mm  
Deflection

DRAWING NO: K54-VD-02      DATE: 10/06/21

SCALE: 1:2      ISSUE NO: 4

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	PSUN PACKERS
7	K54DF
8	K54DS
9	44mm or 54mm TIMBER DOOR
10	K54GI

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Offset Single Glazed
-  Vertical Door Timber with Overpanel
-  0 min Integrity  
0 min Insulation
-  0 mm Deflection

DRAWING NO:

K54-VD-05

DATE:

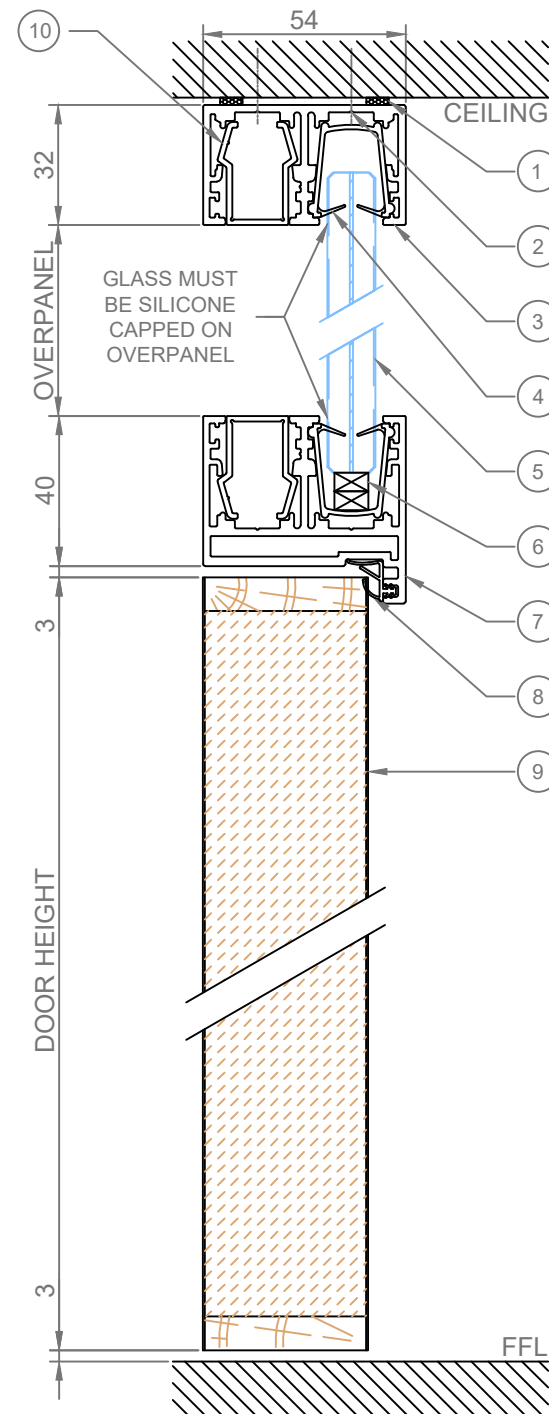
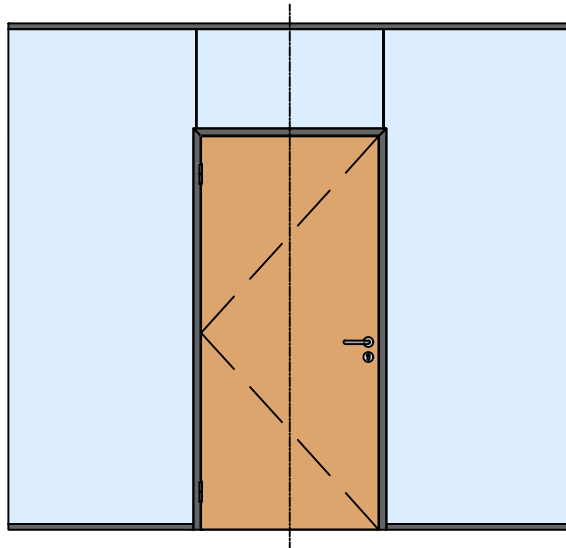
11/06/21

SCALE:

1:2

ISSUE NO:

4



Timber Door with Glazed Overpanel Parameters

\* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.

	Minimum	Maximum
Overpanel Height	200mm	Up to 584mm*
Door Height	1981mm	Up to 2722mm*
Overall Height	2259mm	Up to 3000mm^

^ Dependent on Screen Glass Configuration

Maximum Door Weight = 80kg

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	44mm TIMBER OVERPANEL
9	44mm TIMBER DOOR

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

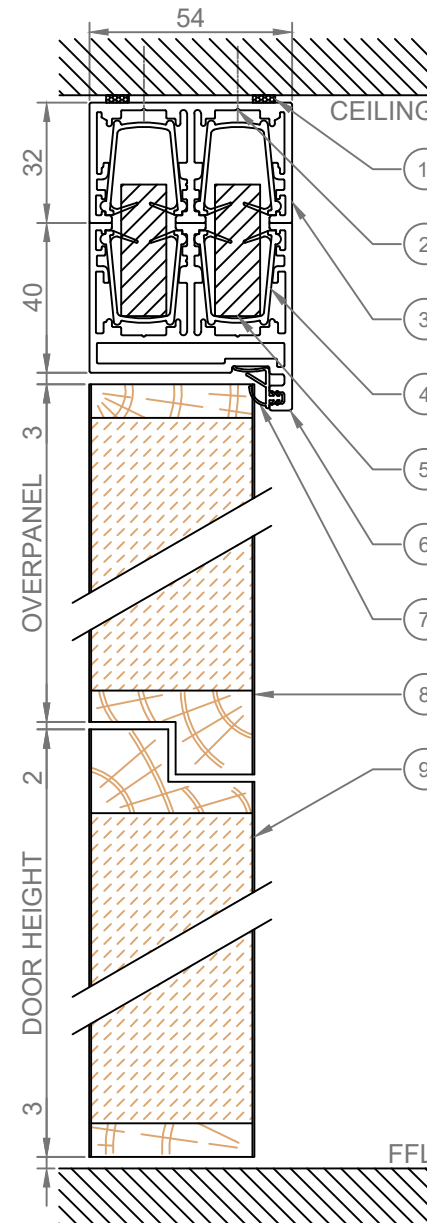
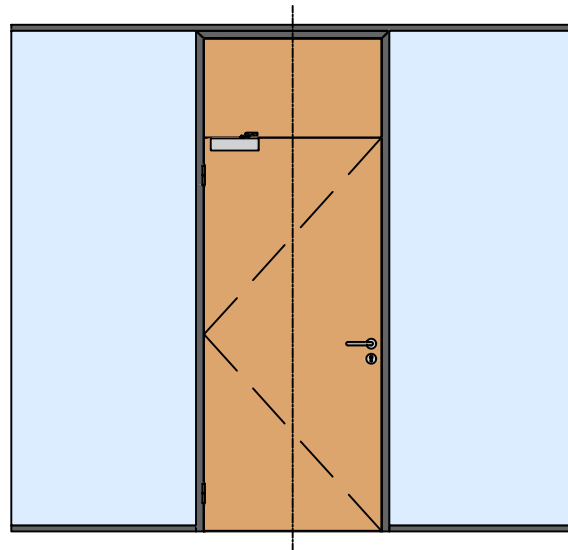
ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Timber with Overpanel
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-VD-10      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 3



Timber Door with Timber Overpanel Parameters

\* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.

	Minimum	Maximum
Overpanel Height	250mm	Up to 584mm*
Door Height	1981mm	Up to 2670mm*
Overall Height	2311mm	3000mm^

^ Dependent on Screen Glass Configuration

Maximum Door Weight = 80kg



## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	44mm or 54mm TIMBER DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

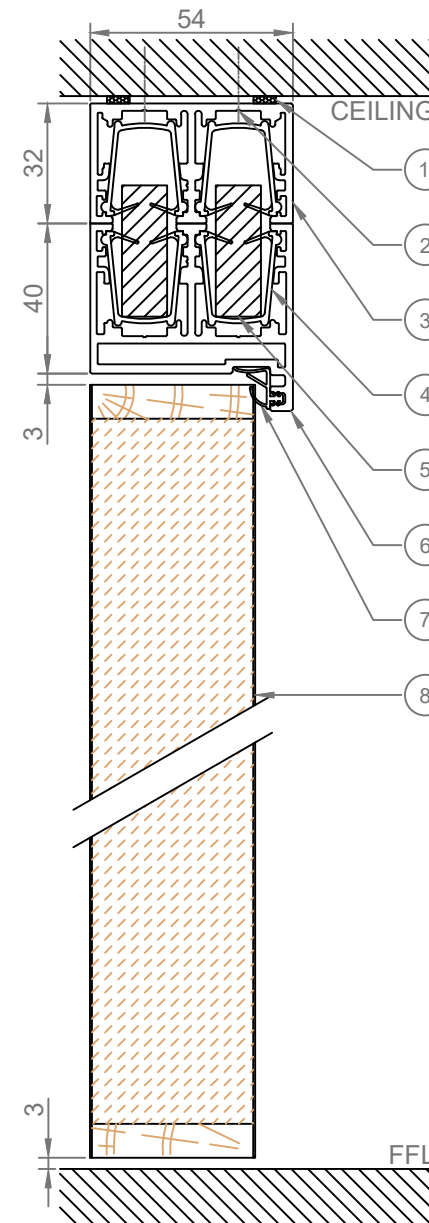
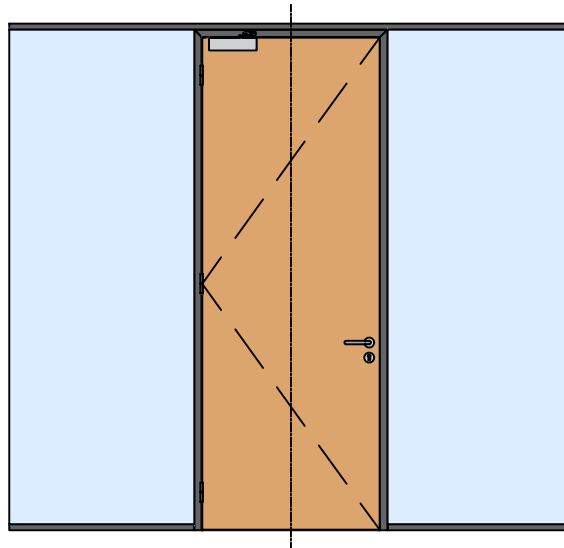
-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Timber
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-VD-08

DATE:  
11/06/21

SCALE:  
1:2

ISSUE NO:  
4



Full Height Timber Door Parameters		
	Minimum	Maximum
Door Height	1981mm	2922mm
Overall Height	2059mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DF
4	SJ20
5	K54DS
6	44mm or 54mm TIMBER DOOR

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

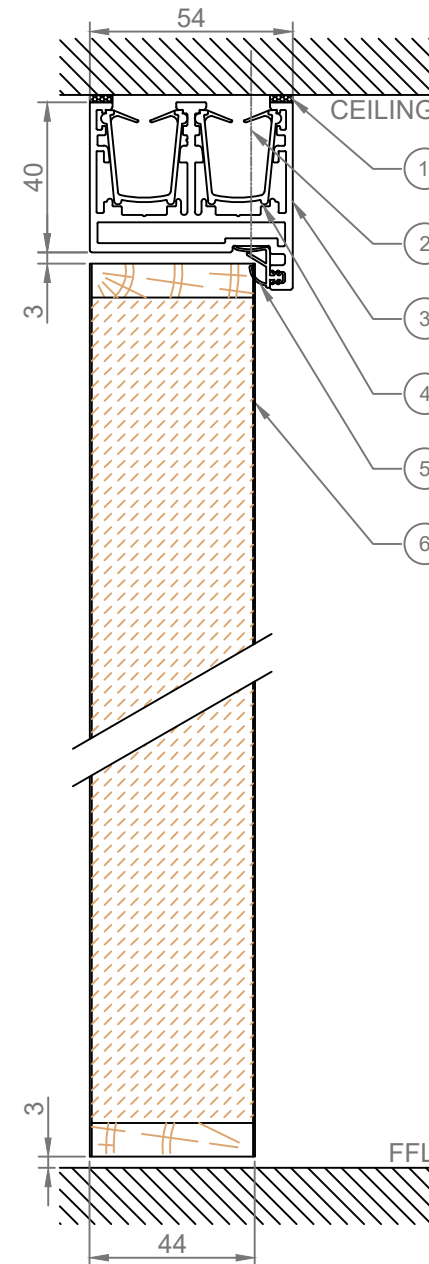
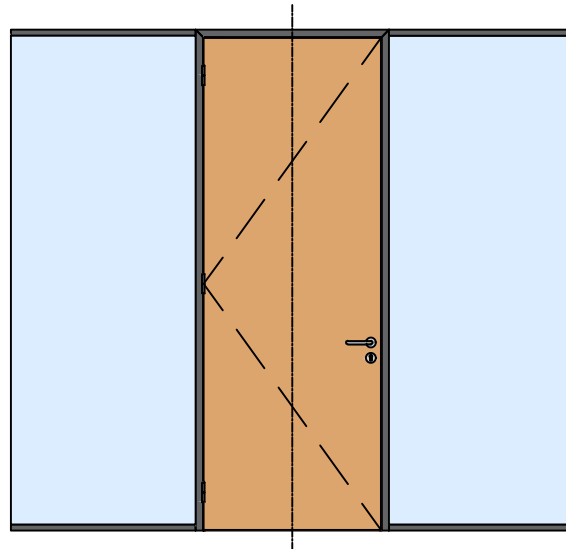
-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Timber
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-VD-12

DATE:  
11/06/21

SCALE:  
1:2

ISSUE NO:  
1







Full Height Timber Door Parameters		
	Minimum	Maximum
Door Height	1981mm	2954mm
Overall Height	2027mm	3000mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		

## Polar 54

COMPONENT KEY:

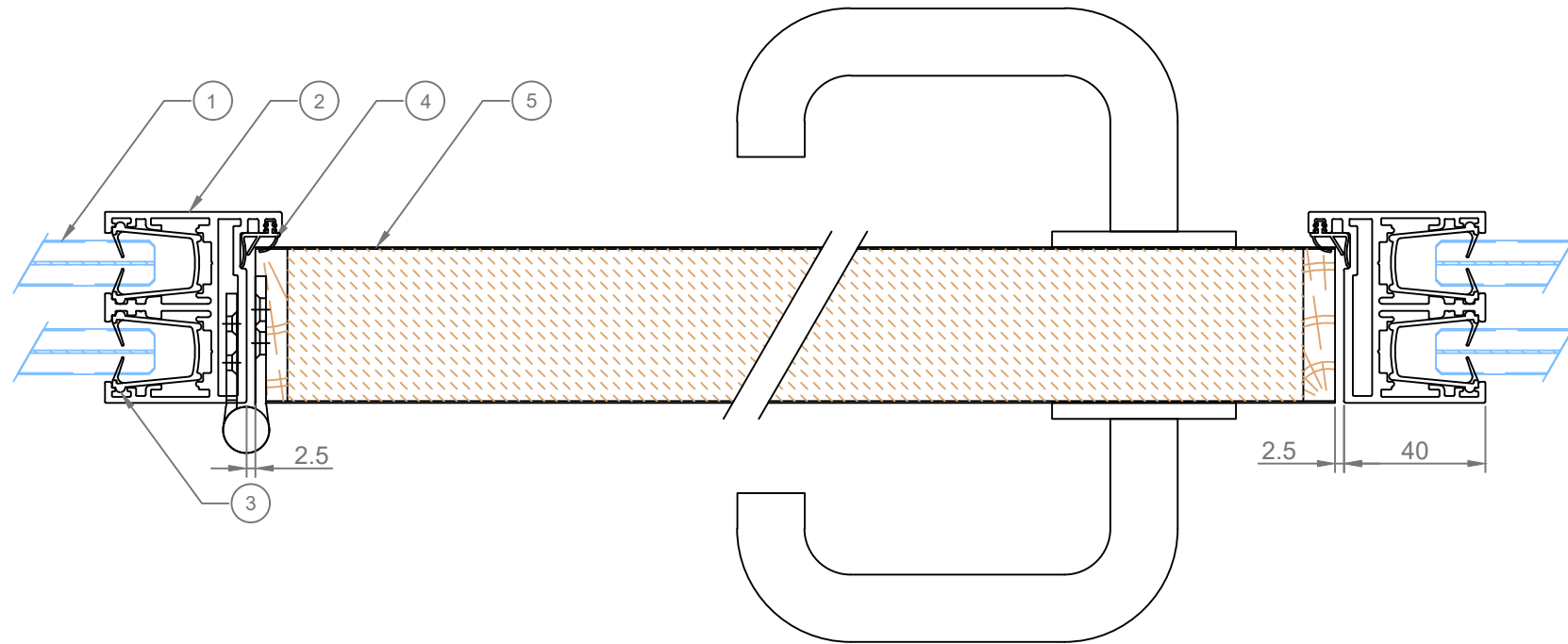
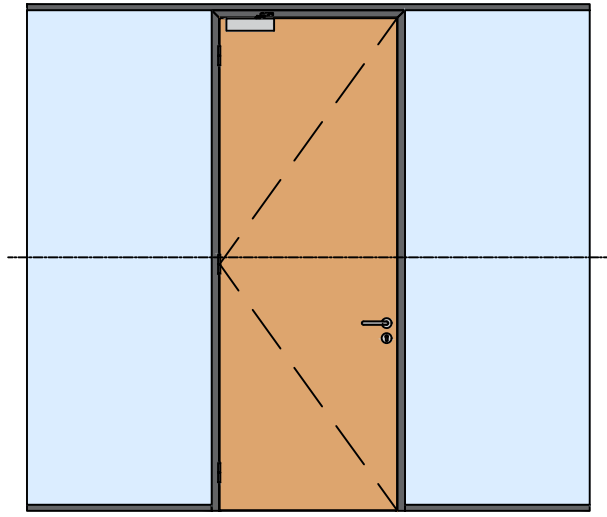
1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	SJ20
4	K54DS
5	44mm or 54mm TIMBER DOOR

NOTES:  
 OTHER IRONMONGERY OPTIONS ARE AVAILABLE  
 ALL DIMENSIONS ARE NOMINAL & IN mm

- JUNCTION CATEGORY:
-  Double Glazed  
Offset Single Glazed
  -  Horizontal Door  
Timber Single Doorset
  -  0 min Integrity  
0 min Insulation
  -  +/- 0 mm  
Deflection

DRAWING NO: K54-HD-02      DATE: 11/06/21  
 SCALE: 1:2      ISSUE NO: 3

Timber Door Parameters
Minimum Door Width = 838mm
Maximum Door Weight = 80kg
Track to Track Opening = Door Width + 85mm



## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	SJ20
4	K54DS
5	44mm or 54mm TIMBER DOOR

NOTES:

TIMBER DOORS MUST BE FULL HEIGHT IN DOUBLE DOORSETS

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

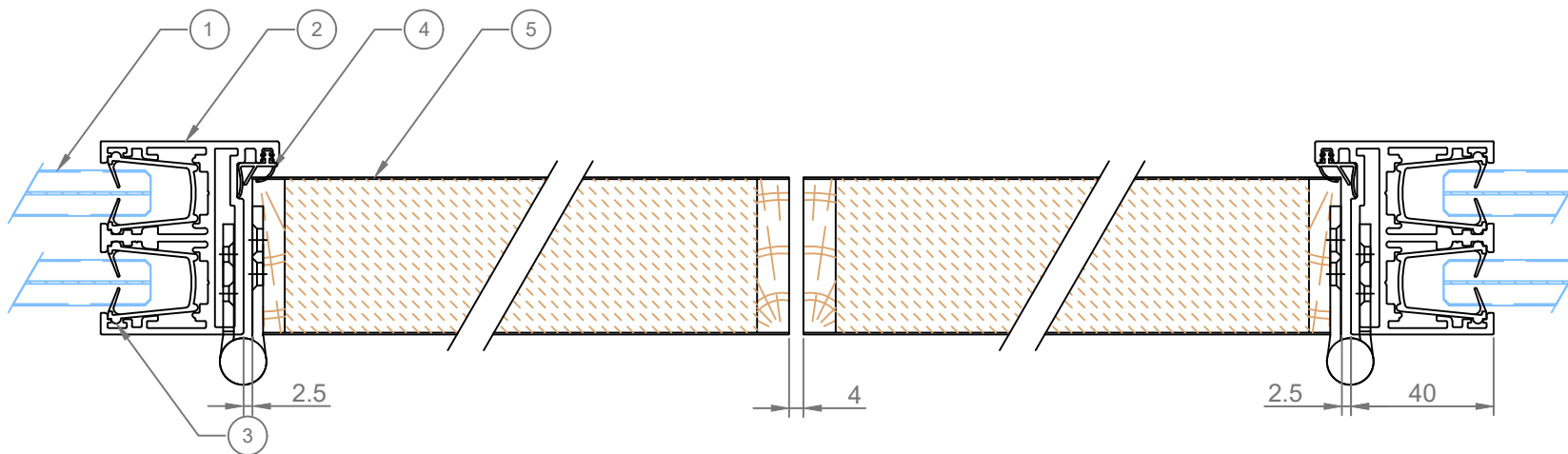
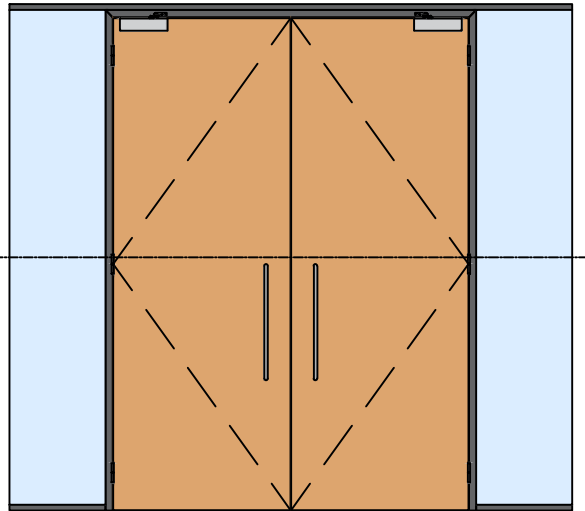
JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Timber Double Doorset
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-HD-05      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 3

Timber Door Parameters
Minimum Door Width = 838mm
Maximum Door Weight = 80kg
Track to Track Opening = Door Widths + 89mm



## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	PSUN PACKERS
7	K54DF
8	K54DS
9	10-12mm CFT GLASS DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

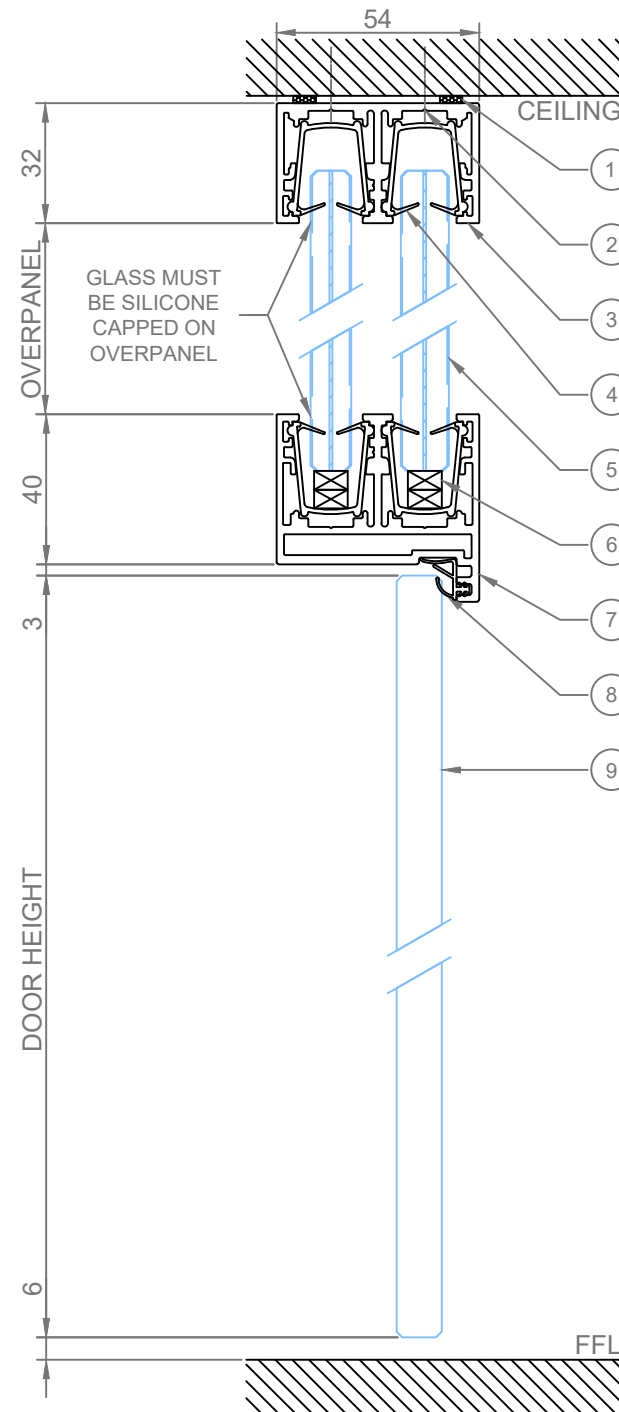
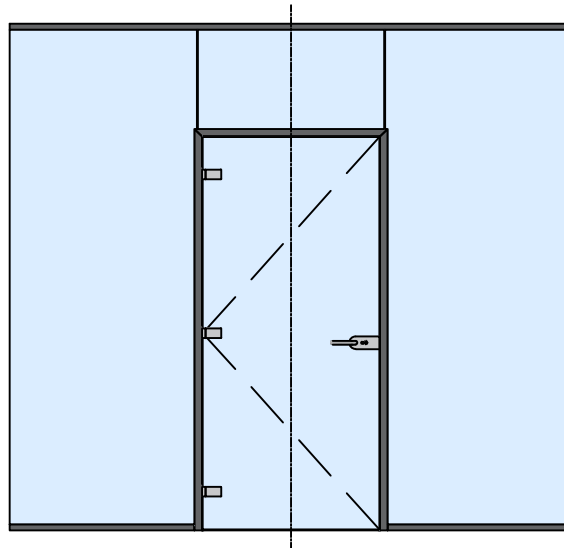
-  Double Glazed
-  Vertical Door Glass with Overpanel
-  0 min Integrity  
0 min Insulation
-  0 mm Deflection

DRAWING NO:  
K54-VD-03

DATE:  
11/06/21

SCALE:  
1:2

ISSUE NO:  
4



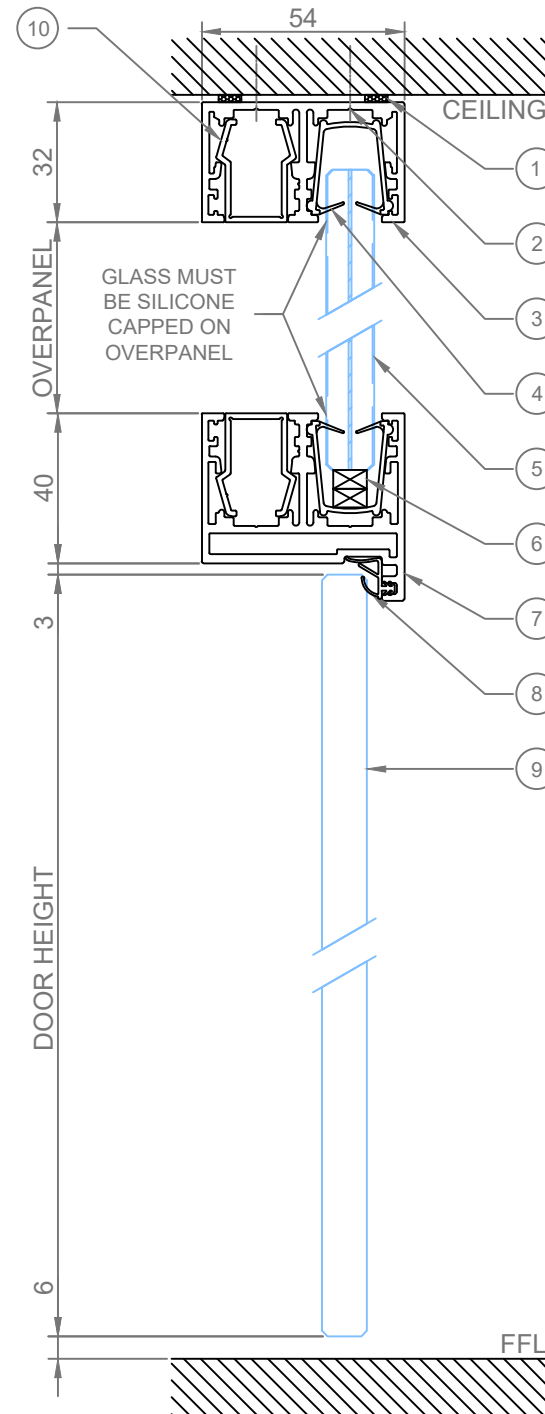
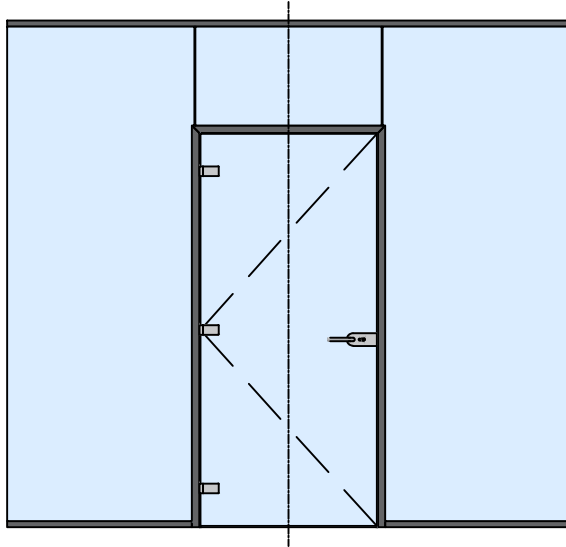
### Framed Glass Door with Glazed Overpanel Parameters

\* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.

	Minimum	Maximum
Overpanel Height	200mm	Up to 583mm*
Door Height	1981mm	Up to 2700mm*
Overall Height	2262mm	Up to 3000mm^

^ Dependent on Screen Glass Configuration

Maximum Door Weight = 80kg



Framed Glass Door with Glazed Overpanel Parameters		
* Please note that maximum overpanel height is based on it being no more than 25% of the actual door height.		
	Minimum	Maximum
Overpanel Height	200mm	Up to 583mm*
Door Height	1981mm	Up to 2700mm*
Overall Height	2262mm	Up to 3000mm^
^ Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		

## Polar 54

### COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	10-14.8mm (CFT or Lam.) GLASS
6	PSUN PACKERS
7	K54DF
8	K54DS
9	10-12mm CFT GLASS DOOR
10	K54GI

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Offset Single Glazed
-  Vertical Glass Door
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO:  
K54-VD-06

DATE:  
11/0/21

SCALE:  
1:2

ISSUE NO:  
4

## Polar 54

COMPONENT KEY:

1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54HT
4	SJ20
5	SJ69
6	K54DF
7	K54DS
8	10-12mm CFT GLASS DOOR

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

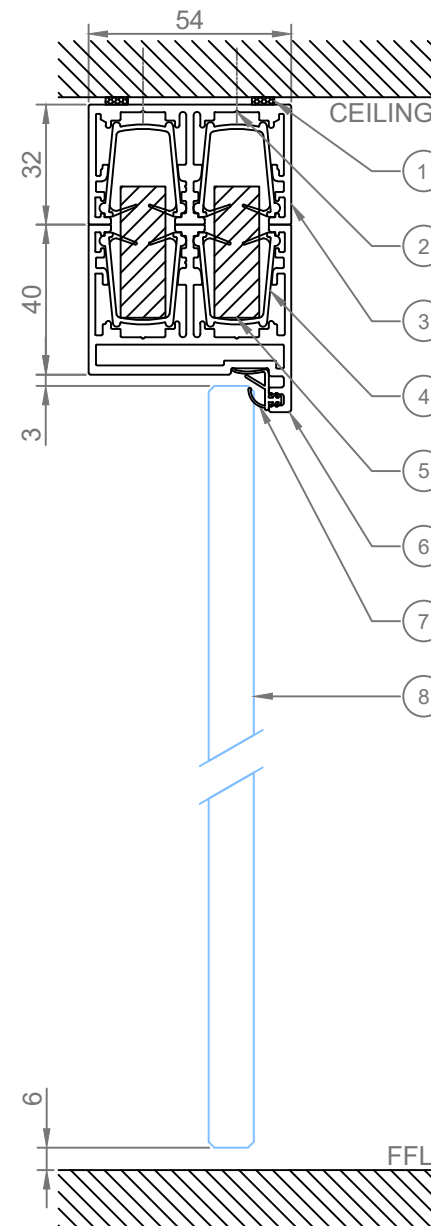
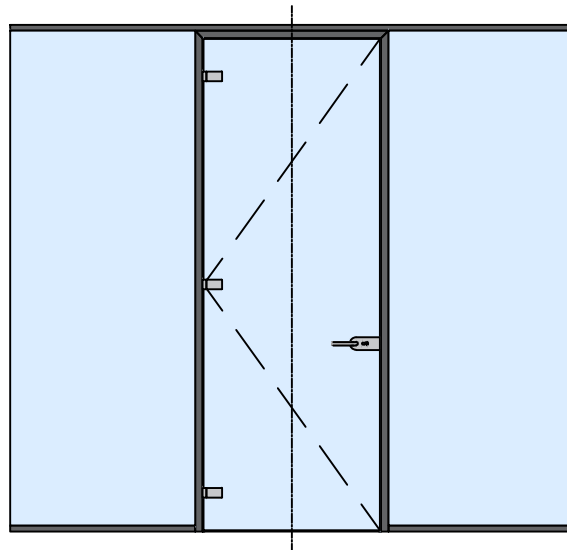
ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Glass
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-VD-09      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 4



Full Height Framed Glass Door Parameters

	Minimum	Maximum
Door Height	1981mm	2700mm
Overall Height	2062mm	2781mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		

## Polar 54

### COMPONENT KEY:


1	342 FOAM
2	SUITABLE STRUCTURAL FIXING
3	K54DF
4	SJ20
5	K54DS
6	10-12mm CFT GLASS DOOR

### NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

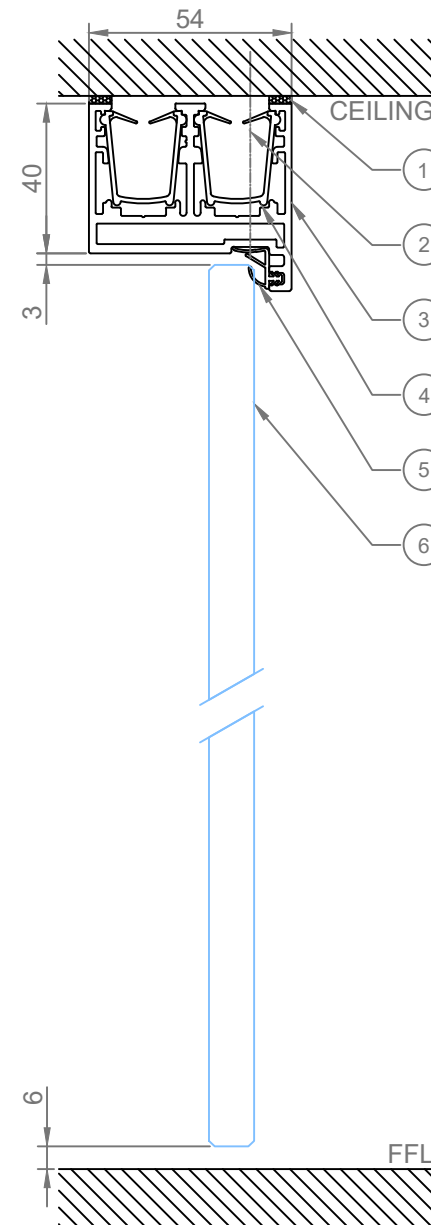
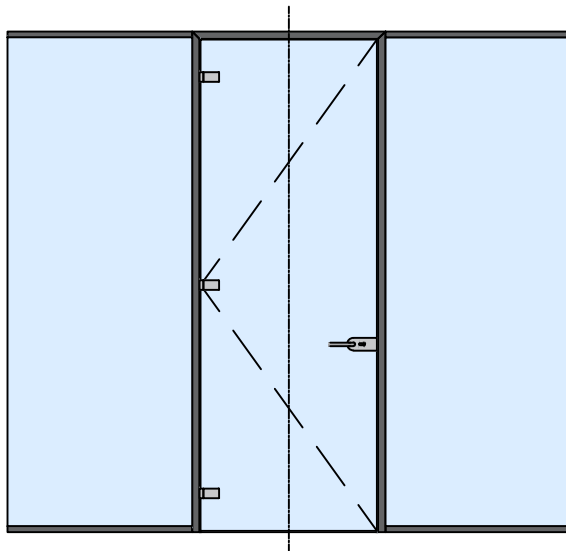
ALL DIMENSIONS ARE NOMINAL & IN mm

### JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Vertical Door  
Full Height Glass
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-VD-13      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 1



Full Height Framed Glass Door Parameters

	Minimum	Maximum
Door Height	1981mm	2700mm
Overall Height	2030mm	2744mm*
* Dependent on Screen Glass Configuration		
Maximum Door Weight = 80kg		



## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	K54GI
4	K54DS
5	10-12mm CFT GLASS DOOR
6	SJ20

NOTES:

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

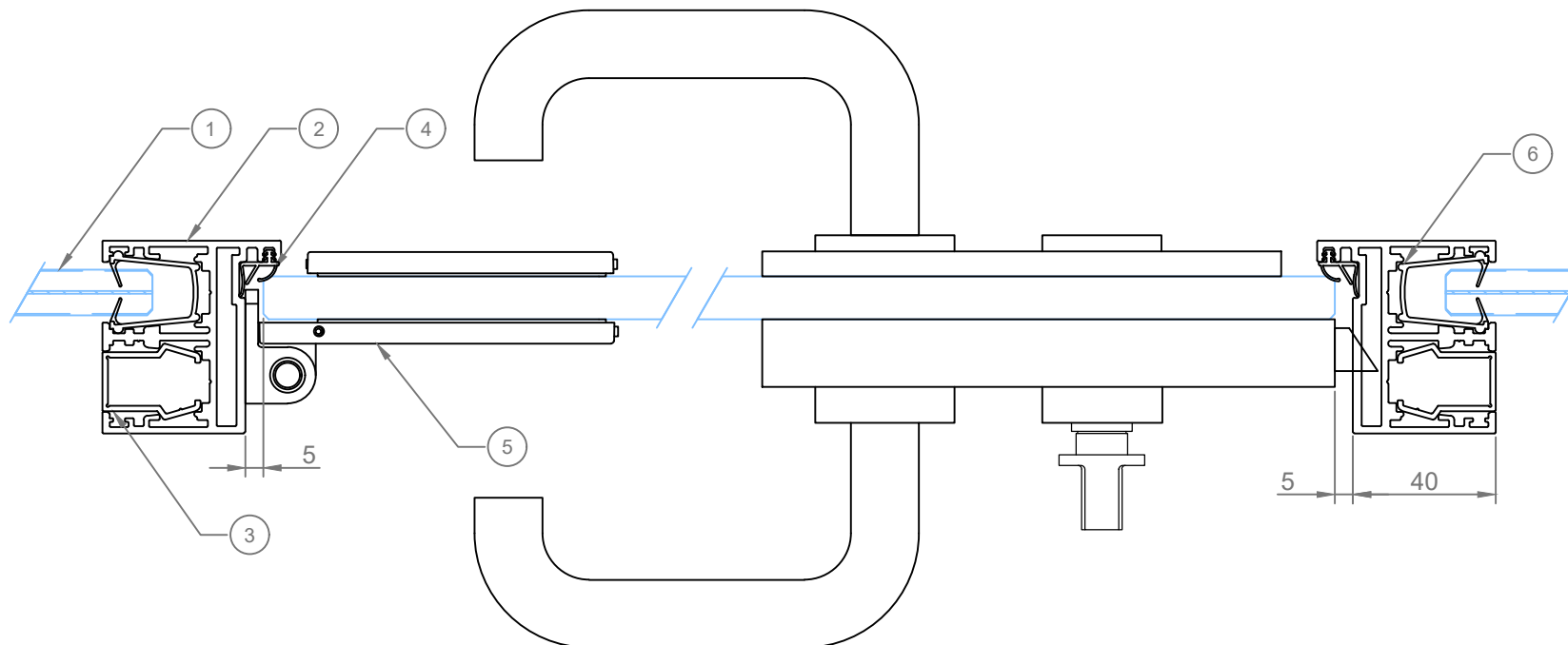
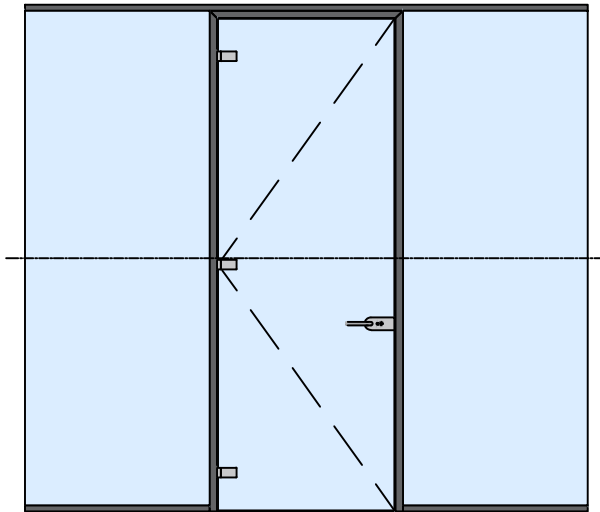
JUNCTION CATEGORY:

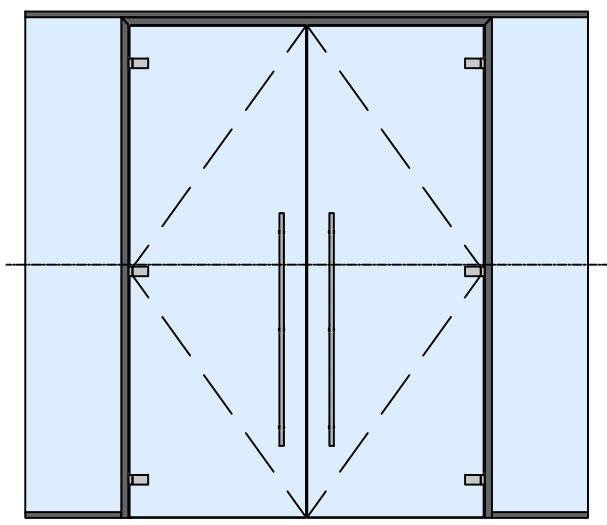
-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Glass Single Doorset
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection

DRAWING NO: K54-HD-03      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 3

Frame Glass Door Parameters
Maximum Door Width = 926mm
Maximum Door Weight = 80kg
Track to Track Opening = Door Width + 90mm





Framed Glass Door Parameters
Maximum Door Width = 926mm
Maximum Door Weight = 80kg
Track to Track Opening = Door Widths + 94mm



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## Polar 54

COMPONENT KEY:

1	10-14.8mm (CFT or Lam.) GLASS
2	K54DF
3	K54GI
4	K54DS
5	10-12mm CFT GLASS DOOR
6	SJ20





NOTES:

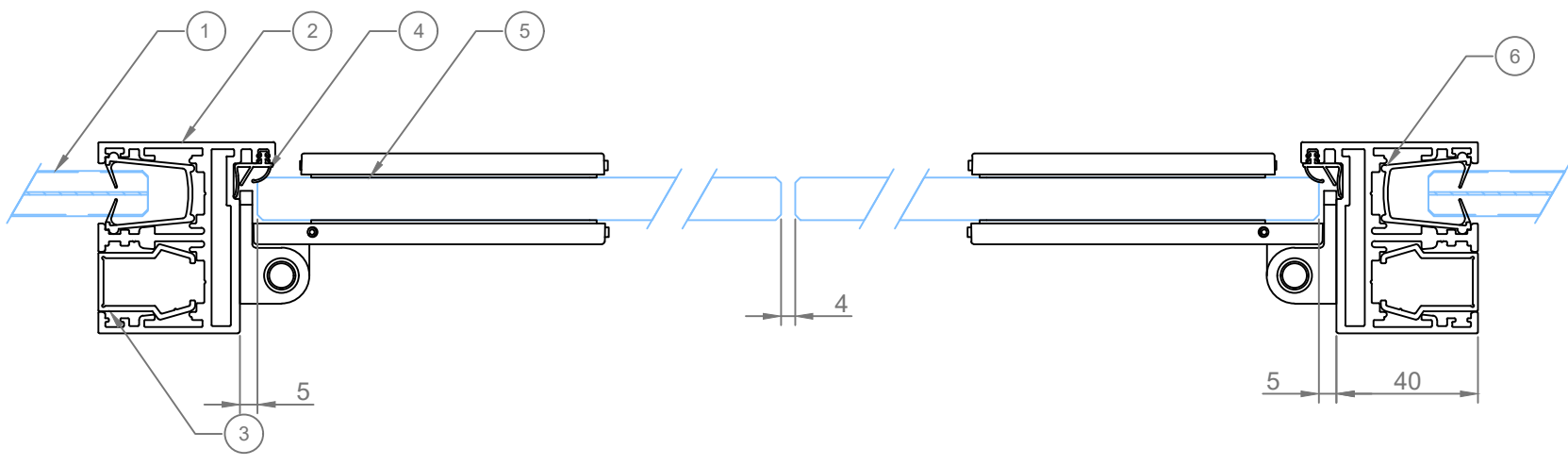
FRAMED GLASS DOORS MUST BE FULL HEIGHT IN DOUBLE DOORSETS

OTHER IRONMONGERY OPTIONS ARE AVAILABLE

ALL DIMENSIONS ARE NOMINAL & IN mm

JUNCTION CATEGORY:

-  Double Glazed  
Offset Single Glazed
-  Horizontal Door  
Glass Double Doorset
-  0 min Integrity  
0 min Insulation
-  +/- 0 mm  
Deflection



DRAWING NO: K54-HD-06      DATE: 11/06/21

SCALE: 1:2      ISSUE NO: 3